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ABSTRACT

The major purpose of this study was to determine the characteristics, problems, and recommendations for developing and improving open-entry/open-exit systems of individualized, competency-based vocational instruction for Florida high school students. A survey instrument was developed to collect relevant data. Those surveyed in the descriptive study included administrators, school and department supervisors, teachers, counselors, teacher's aides, and clerical aides. Nine instructional program areas were represented by the personnel surveyed: agriculture, business education, distributive education, diversified cooperative training, home economics, individualized manpower training systems, industrial education, and technical education. The respondents generally recommended and supported the concept of open-entry/open-exit systems of individualized competency-based vocational instruction for high school students, but they indicated the success of the system is contingent upon policy changes in Full Time Equivalent funding, credit requirements, and materials development. The effective implementation of the open-entry/open-exit system of individualized competency-based vocational instruction for high school students is limited by a lack of clerical assistance, ineffective or incomplete materials, inadequate time and funds to train staff, and a lack of cooperation of feeder school staff generally based on a lack of understanding and/or knowledge of the system. (Author/LRA)

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Final Report

Project No. DVE 441 7-1C11

From April 5, 1978 to September 30, 1979

# An Analysis of Open-Entry/Open-Exit Systems of Individualized Competency-Based Vocational Instruction for High School Students Within Selected Florida School Districts

St. Johns County School Board
P. O. Box 500
St. Augustine, Florida

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FIGURES

1. Major differences in perceptions of program characteristics among respondents by school districts where the mean of the group responses varied by more than one class interval or 1.0 . . . . . 102

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3. Major differences in recommendations among respondents by position where the means of the groups varied by more than 1.0 or one class interval . . . . . 121

ABSTRACT

The major purpose of this study was to determine the characteristics, problems, and recommendations for developing and improving open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida by surveying, interviewing, and observing personnel who had been involved in the planning, organization, and implementation of such systems in Marion, Pinellas, and St. Johns Counties. Specifically, this study was designed to determine the answers to these questions: 1. What are the characteristics of the three school systems studied and to what extent do they exist as perceived by the total vocational education personnel surveyed and by the respondents according to their school districts, positions, and instructional program areas? 2. What have been the problems of the three school systems studied and to what extent have they existed as perceived by the total vocational education personnel surveyed and by the respondents according to their school districts, positions, and instructional program areas? 3. What are the recommendations for the improvement of existing systems and development of new systems as

perceived by the total vocational education personnel surveyed and by the respondents according to their school districts, positions, and instructional program areas?

## Design and Procedures

This research study was descriptive in nature. A survey instrument was developed to determine the characteristics, problems, and recommendations for open-entry/open-exist systems of individualized competency-based vocational instruction for high school students in Florida. The instrument was administered to all personnel involved with such systems at the Ocala Community High School in Marion County, the St. Petersburg Vocational-Technical Institute in Pinellas County, and the St. Augustine Technical Center in St. Johns County. The personnel who were surveyed to obtain the data included the following positions: administrators, school and department supervisors, teachers, counselors, teacher's aides, and clerical aides. Nine instructional program areas were represented by the personnel surveyed: agriculture, business education, distributive education, diversified cooperative training, home economics, individualized manpower training systems (IMTS), industrial education, and technical education. The survey instrument was composed of four major sections: (1) characteristics--53 items; (2) problems--50 items; (3) recommendations--23 items; and (4) demographic data--14 items. Although no side headings were used, items in each of the

first three sections were grouped into four categories to facilitate analysis: (1) policies and procedures; (2) curriculum and instruction; (3) staffing and staff development; and (4) facilities, equipment, and materials. After the data were collected, analyses were conducted using the following statistical treatments: the mean, median, mode, standard deviation, frequencies, and percentages of the responses by the total personnel, by the school districts, by the positions, and by the instructional program areas.

## Conclusions and Implications

The findings of the study suggest the following conclusions and recommendations: 1. All of the items included in the survey instrument were appropriate to the planning, organization, and implementation of open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida.
2. Perceptions of the characteristics, problems, and recommendations were moderately influenced by the respondent's school district and greatly influenced by the respondent's position and instructional program area.
3. Most of the characteristics listed in the survey instrument exist to a great extent at the three school sites studied. Although the three systems are organized to facilitate students entering, progressing, and exiting as they are ready, the high school students are actually

prohibited from taking advantage of this system unless they assume an adult status. High school, school board, and state policies concerning time-based credits, scheduling, and FTE Funding policies restrict the open-entry/open-exit concept from implementation for high school students. 4. The effective implementation of the open-entry/open-exit system of individualized competency-based vocational instruction for high school students is limited by: lack of clerical and/or computer assistance for time-consuming recordkeeping; ineffective or incomplete V-TECS materials; inadequate time and funds to train staff; lack of support and cooperation from the feeder high school personnel; insufficient background in educational methods, curriculum, and concepts by some teachers; and lack of student involvement in curriculum decisions and vocational student organizations. 5. The respondents generally do not recommend the removal of compulsory attendance laws for high school students and restricted enrollment of high school students with previous attendance or discipline problems. 6. The respondents generally recommend and support the concept of open-entry/open-exit systems of individualized competency-based vocational instruction for high school students, but they indicate the success of the system is contingent upon policy changes in FTE Funding, credit requirements, and materials development.

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Special appreciation is extended to Dr. Ken Eaddy, Dr. Virginia Bert, Patsy Agee, and Hiram Green for helping to make this study possible and for providing assistance. May the conclusions and recommendations of the study assist in the further improvement of vocational instruction for students in Florida.

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# CHAPTER I

## INTRODUCTION

The decade of the seventies has become known as the "age of accountability." Increasing concerns about inflation, money shortages, and training of students to effectively enter the work force have resulted in the need for justification and evidence of educational goals and student achievement.[1]

Competency-based vocational education is a direct outgrowth of public demand for accountability.[2] Through competency-based vocational instruction, students are trained in the specific tasks required for selected occupations at the minimum standards of performance that have been established.[3]

Educators have long accepted the tenets of learning theorists that students have varying aptitudes,

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[1]Floyd L. Coppedge, "Goals of Individualization," Educational Technology 15 (August 1975).

[2]Herbert Holt Jarrett, Jr., "Implications of Implementing Competency-Based Education in the Liberal Arts," Educational Technology 17 (April 1977).

[3]Adele F. Schrag, "Competency-Based Education: Its Promise and Its Problems," Business World Education 57 (September/October 1976).

retentive abilities, and rates of learning.[1] Providing for the individual needs and learning styles of students has been a major concern of educators. Since 1970 more individualized instructional materials have been developed to facilitate students learning at their own levels, styles, and rates.[2]

An open-entry/open-exit system of individualized vocational instruction provides flexibility in time and scheduling to enable students to enter a program when they are ready, progress through the program at their own pace, and exit the program when the competencies have been developed.[3] Thus, if instruction is to be truly competency-based, then it must be individualized to provide for different learning levels, styles, and rates. To effectively implement individualized competency-based vocational instruction, then, an open-entry/open-exit policy must be adopted to enable students to enter and exit programs as they are ready.

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[1]Rita S. Dunn, "Individualized Instruction: The Rationale and Five Alternative Methods," The Delta Kappa Gamma Bulletin 60 (May 1973).

[2]Jane P. Russell, Modular Instruction: A Guide to the Design, Selection, Utilization, and Evaluation of Modular Materials (Minneapolis, Minnesota: Burgess Publishing Company, 1974).

[3]Eugene Dollar, Individualized Instruction in Open-Ended Manpower Programs (Stillwater, Oklahoma: State Department of Vocational and Technical Education, 1971).

The major purpose of this study was to determine the perceptions of school personnel regarding the characteristics, problems, and recommendations for developing and improving open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida. The personnel studied had been involved in the planning, organization, and implementation of such systems in three school districts in Florida.

Data were collected through observations and interviews by this researcher at the school sites surveyed. The findings were combined with the data of the survey and the review of literature and previous research to form the conclusions and recommendations presented in chapter five.

## Statement of the Problem

This study was designed to determine the characteristics, problems, and recommendations for improving existing systems and developing new systems of individualized competency-based vocational instruction featuring an open-entry/open-exit policy. Specifically, the study was designed to answer the following questions:

1. What are the characteristics of the three systems studied and to what extent do they exist as perceived by the total vocational education personnel and by the respondents according to their school districts, positions, and instructional program areas?

2. What have been the problems of the three systems studied and to what extent have they existed as perceived by the total group and by the respondents according to their school districts, positions, and instructional program areas?

3. What are the recommendations for the improvement of existing systems and development of new systems as perceived by the total group and by the respondents according to their school districts, positions, and instructional program areas?

The school districts and individual schools included in the study were: (1) Marion County--Ocala Community High School, (2) Pinellas County--St. Petersburg Vocational and Technical Institute, and (3) St. Johns County--St. Augustine Technical Center.

The respondents surveyed were identified by the following six positions: administrator, supervisor, instructor, counselor, teacher's aide, and clerical aide.

The program areas of the instructional personnel included in the study were: Agriculture, Business/Office, Distributive Education, Diversified Cooperative Training, Health, Home Economics, Individual Manpower Training Systems (IMTS), Industrial Education, and Technical Education.

## Background and Need

As previously documented, the emphasis on accountability has compelled vocational educators in Florida and across the nation to rapidly develop and attempt to use individualized competency-based instructional materials. Competency-based vocational instruction is based upon the competencies identified through task analyses of occupations and predetermined performance objectives. Criterion-referenced evaluations and learning experiences are correlated to the objectives.[1]

These criteria have been included in the standards of the Florida Vocational Education Instructional Program Review: Occupational Proficiency Programs, an instrument developed by personnel in the Vocational Division of the Department of Education to evaluate vocational programs in Florida. Standard one specifies: "The occupational proficiency program is based on identified current and projected occupational opportunities and student interest and need."[2] Standard three mandates that "Courses or units of instruction within a program are based on competencies

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[1]Dennis C. Nystrom, G. Keith Bayne, and L. Dean McClellan, Instructional Methods in Occupational Education (Indianapolis: Bobbs-Merrill Company, Inc., 1977),

[2]Vocational Education Division, Vocational Education Instructional Program Review: Occupational Proficiency Programs (Tallahassee: Florida Department of Education, 1976), p. 1.

derived from an analysis of identified occupational titles." Standard four states that "Learning experiences are based on measurable performance objectives and criterion-referenced measures are used to determine whether or not students meet performance objectives."[2]

To be effective, competency-based vocational instruction should be individualized. Learning should be based upon the interests, aptitudes, abilities, and needs of the individual learner. Standard ten of Florida's Vocational Education Instructional Program Review, states:

> Established program admission procedures are in evidence and are based on criteria such as: (a) identified student interest; (b) student aptitude; (c) student need; (d) physical capability; (e) personnel requirements for the occupation; and (f) requirements of regulatory agencies.[3]

Individualized competency-based vocational instruction allows students to progress through learning experiences and assessment of their achievement at their own rate. To provide for differences in this achievement rate among learners, an open-entry/open-exit system should be implemented to provide entrance by an individual student into an instructional program at any time if space is available as well as the option to leave the program at any time with a documented record of competency

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[1]Ibid., p. 2.

[2]Ibid., p. 3.

[3]Ibid., p. 8.

attainment.[1]

The open-entry/open-exit system facilitates the use of individualized competency-based vocational instruction plans and materials by changing time-based completion of training programs into competency-developed achievement of requisite skills, knowledge, and attitudes. The importance of the open-entry/open-exit system is stressed in the Florida Department of Education publication The Operation of an Area Vocational-Technical Center. The third section of the first chapter entitled Open-Entry and Open-Exit states:

> The area vocational-technical center should permit persons to enter training at any time during the calendar year on a space available basis. This concept is facilitated when the center operates on a self-paced, competency-based, and individualized instructional basis. With competency-based instruction, attention should be given to achievement of identified performance objectives rather than completion of a given number of instructional hours.[2]

Open-entry/open-exit systems of Vocational Education have been mandated in the Florida School Laws. In 233.068(2) designated as job-related vocational instruction the following is stipulated:

> Each district's program must provide, as a minimum, courses in at least five vocational education areas. Such instruction shall be

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[1]Dollar, Individualized Instruction.

[2]Vocational Education Division, The Operation of an Area Vocational-Technical Center (Tallahassee: Florida Department of Education, 1976), p. 3.

> available to all persons in the district regardless of previous academic attainment. Further, such instruction shall be available throughout the year, so that students are not required to wait for the beginning of a new academic period prior to starting their training.[1]

The Florida State Board of Education Administrative Rules specifies the following regarding open-entry/open-exit systems of vocational programs of instruction in 6A-6.70(3):

> Each school board or junior college board of trustees shall permit persons, regardless of academic attainment, to enroll in this program to begin some appropriate phase of training. No person shall be required to wait for the beginning of a new academic period to begin his training.[2]

The desired change to open-entry/oper -exit systems of individualized competency-based vocational instruction is sought by vocational educators throughout the state of Florida to maximize the efficiency and effectiveness of human, material, and time resources. In 1977 the Vocational Education Division distributed a survey titled Professional Administrative Competencies Needs Assessment to the sixty-seven local vocational directors and the twenty-eight community college deans/directors for vocational

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[1] Florida School Laws, Chapter 233.068 (Tallahassee, Florida: Department of Education, 1977), p. 83.

[2] Florida State Board of Education Administrative Rules, Chapter 6A-6.7, 6A-6.70 (Tallahassee: Florida Department of Education, 1976), p. 136.

education. Of the 80 percent returned, 68 percent of the respondents indicated a need to develop competencies in the "Knowledge of the structure needed to implement individual instructional programs including open-entry-exit of students, performance-based evaluation devices, and flexible schedules of school activities."[1] Approximately 62 percent of those surveyed reflected a need to develop competency in "Ability and knowledge to describe the components and elements of individualized instruction."[2]

Over 71 percent of the respondents expressed a need to develop competency in "Knowledge of the structure needed to implement individual instructional programs including organization of community resources to support competency-based vocational instruction programs."[3] The sixth competency in the survey received the following percentages:

"a. Teacher certification (55%)
"b. Funding formulae (66%)
"c. Graduation requirements (58%)
"d. Space allocation requirements (58%)
"e. Grading systems (55%)
"f. Pupil ratio for teachers and ancillary staff (61%)
"g. Curriculum content (61%)"[4]

The themes and sessions at recent Florida

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[1]Vocational Education Division, "Results of the Professional Administrative Competencies Needs Assessment" (Tallahassee: Florida Department of Education, 1977), p. 1.

[2]Ibid. [3]Ibid. [4]Ibid.

Vocational Association state and regional conferences have centered around competency-based vocational education and individualized instruction. Workshops and seminars have included reference to the importance of providing open-entry/open-exit systems if the competency-based instruction is to be truly individualized.

According to a survey of local vocational directors in Florida by Green,[1] only three open-entry/open-exit systems of individualized competency-based vocational instruction have been implemented in school districts with high school students. Many concerns have arisen from vocational educators, administrators, and support staff where these programs are operating. Educators in other schools and districts are apprehensive about the feasibility and procedures involved in initiating the open-entry/open-exit system with their high school vocational students.

At present empirical data regarding the open-entry/open-exit programs have not been identified. Few specific guidelines have been developed for the planning, organization, and operation of open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida. No

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[1]Hiram Green, Consultant in the Research and Development Section, Vocational Education Division of the Florida Department of Education, personal interview, 17 February 1978.

comparative studies of existing open-entry/open-exit systems in Florida have been identified that determine the characteristics and problems of the systems regarding policies, procedures, curriculum, instruction, staffing, facilities, equipment, and materials.

This comparative analysis of three systems was conducted to ascertain the characteristics, problems, and recommendations for planning, organizing, and implementing open-entry/open-exit systems of individualized competency-based vocational instruction with high school students. This has been identified as a research priority in the 1978-1979 Florida State Plan for Vocational Education.

## Significance of the Study

Improvement in the quality and growth of Vocational Education programs and instruction is contingent upon meeting the needs of individual students and providing competently trained employees for business and industry. To achieve these goals, individualized competency-based vocational instruction must be provided on an open-entry/open-exit basis.

To accomplish statewide implementation of open-entry/open-exit systems of individualized competency-based vocational instruction, guidelines need to be provided to assist vocational educators, administrators, guidance personnel, and support staff in planning, organizing, and operating programs utilizing this system.

This study collected and synthesized information concerning characteristics, problems, and recommendations from those educators who have been directly involved with initiating and developing these experimental programs in Florida.

By analyzing open-entry/open-exit systems in small, medium, and large school districts, unique and common characteristics, problems, and recommendations were identified. Discrepancies in perceptions by total responses, positions of the respondents, instructional program areas, and the three school districts provide an indication of areas which may require greater attention and/or communication in the planning, organization, and implementation of open-entry/open-exit systems of individualized competency-based Vocational Education programs of instruction for high school students.

The findings, implications, conclusions, and recommendations presented in this research study furnish a basis for the development of a future handbook for the Vocational Education Division of the Florida State Department of Education. When it is developed, the handbook will provide guidelines to vocational educators and administrators for the planning, organization, and operation of open-entry/open-exit systems of individualized competency-based vocational instruction with secondary students.

The study will furnish some direction for inservice education programs and activities to improve the existing open-entry/open-exit systems of individualized competency-based vocational instruction for high school students. Based upon the needs identified by vocational directors, supervisors, and instructional personnel in this and other statewide surveys, personnel in the Vocational Education Division of the Department of Education may plan inservice workshops with state consultants and local school district personnel to facilitate the development of new open-entry/open-exit systems of individualized competency-based vocational instruction for high school students throughout Florida.

## General Design of the Study

### Descriptive Design

This research study is descriptive in nature. A survey instrument was used to determine the perceptions of administrators, supervisors, instructors, teacher's aides, clerical aides, and counselors who were involved in the planning, organization and operation of open-entry/open-exit systems of individualized competency-based vocational instruction for secondary students in a small, a medium, and a large school district in Florida.

According to personnel in the Vocational Division

of the Department of Education,[1] only three schools in Florida have developed and implemented plans for utilization of open-entry/open-exit systems of individualized competency-based vocational instruction with high school students. During the 1975-1976 school year, this policy was initiated with secondary level students at the St. Augustine Technical Center in the small county of St. Johns. The system had been piloted previously for two years with adults.

The medium-sized county of Marion involved 150 high school students from four local high schools in its first year of operating the open-entry/open-exit policy at the Community High School during the 1976-1977 school year. This year 360 secondary students are enrolled on a full-time basis. Marion County experimented with open-entry/open-exit systems for adults for two years before including secondary students.

For five years adults have had the opportunity to enroll in open-entry/open-exit systems of individualized competency-based vocational programs in the large county of Pinellas. For a second year the high school students have also been provided this privilege at the newly constructed St. Petersburg Vocational-Technical Institute.

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[1]Green, Interview, 17 February 1978.

The survey instrument was administered to all of the personnel after interviews and observations were conducted. The instrument was used to obtain information concerning characteristics, problems, and recommendations in the design, implementation, and coordination of the open-entry/open-exit systems of individualized competency-based vocational instruction with high school students.

The data obtained from the respondents with the survey instrument were analyzed, interpreted, and organized in a tabular format. The findings were summarized and implications were derived to form conclusions and propose recommendations for the effective and efficient development of open-entry/open-exit systems of individualized competency-based vocational instruction for secondary school students in Florida.

## Development of the Instrument

The sections and individual response items of the survey instrument were developed utilizing a variety of sources including: interviews with the local personnel to be surveyed; observations of the open-entry/open-exit programs which offer individualized competency-based vocational instruction with high school students in the three schools previously identified; reviews of relevant literature and previous research; state vocational education personnel survey results; Florida School Laws and

State Board of Education Administrative Rules; interviews with personnel in the Vocational Education Division of the Florida Department of Education; and discussions with faculty members in the Department of Educational Leadership at Florida State University.

The survey instrument was composed of four major sections: (1) characteristics of the open-entry/open-exit systems of individualized competency-based vocational instruction for high school students; (2) problems involved with the planning, organization, and implementation of the systems; (3) recommendations for the design, coordination, and operation of the existing and new open-entry/open-exit programs in Florida; and (4) demographic data regarding the vocational programs, personnel, and schools surveyed.

## Validation of the Instrument

Several reviews of the instrument were made by Department of Education personnel, Florida State University faculty members, and local school district personnel to establish its design, format, content, appropriateness, and clarity. The final instrument was submitted to a field review by local personnel who would be surveyed to confirm its validity.

## Reliability of the Instrument

A test-retest procedure was established to

determine the reliability of the survey instrument. Responses on the pretest and posttest were tabulated for the thirty participants to determine their correlation and the statistical level of significance for each item in the survey.

## Populations Surveyed

The survey instrument was administered to 118 of the 119 school personnel in Marion, Pinellas, and St. Johns Counties who have been involved with the open-entry/open-exit system of individualized competency-based vocational instruction with high school students. Personnel surveyed included: building administrators, department and school supervisors, classroom instructors, counselors, teacher's aides, and clerical aides. All three of the populations were surveyed in their entirety by the researcher on site with the exception of one instructor who was not available.

The number of respondents from each of the schools in the survey included: twenty from Ocala Community High School in Marion County; thirty-eight from St. Petersburg Vocational/Technical Institute in Pinellas County; and sixty from the St. Augustine Technical Center in St. Johns County.

## Procedures

The general procedures employed to conduct this

research study included the following:

1. Interviews with a representative group of personnel within the populations of each of the school districts

2. Observations of a selected variety of open-entry/open-exit vocational programs, students, and personnel

3. Development, validation, and reliability of the survey instrument

4. Administration of the survey instrument to the three populations

5. Collection and tabulation of data

6. Analysis and interpretation of data

7. Summary of findings and derivations of implications

8. Formation of conclusions and recommendations

Analysis of the Data

After the data were collected, an analysis was made using the following statistical treatments: the mean, median, mode, standard deviation, frequencies, and percentages of the responses were calculated by the total responses, school district, positions, and program areas.

The data from the computer printouts were analyzed using the statistical treatments identified above to determine major discrepancies and agreement in perceptions

among the respondents by total responses, school districts, positions, and program areas.

## Limitations of the Study

This research study was limited to an analysis of personnel in three school districts of small, medium, and large sizes in the three different areas of the state in which an open-entry/open-exit system of individualized competency-based vocational instruction is being piloted with secondary students. As such, it did not include other populations such as the regional program consultants and program directors, program and staff personnel, and planning specialists of the Vocational Education Division of the Florida Department of Education.

Only those persons in the three school districts involved in the planning, organization, and operation of the open-entry/open-exit systems of individualized competency-based vocational instruction for secondary school students were surveyed. Thus, the views of students, parents, community, and other educators were not included.

This research study was limited to the perceived characteristics, problems, and recommendations according to the respondents. Therefore, no attempt was undertaken to evaluate the effectiveness, appropriateness, or efficiency of instructional systems. Consequently, the usefulness of the data is dependent upon the accuracy of

the respondents' perceptions, their candor in responding to the survey, and their desire to share their views with others.

## Definitions of Terms

For the exclusive purposes of this research study and to develop understanding and consistency within the study, the following glossary of terms is provided:

Competency--The requisite skills, knowledge, and attitudes which a student will demonstrate at a predetermined level of proficiency.

Competency-based vocational instruction--Learning based upon occupational opportunities available, task analyses of jobs for which students are trained, specific and sequenced performance objectives, correlated learning experiences for development of competencies, and related criterion-referenced evaluations of the student's attainment.

Criterion-referenced evaluation--Exercises or tests based upon performance objectives and designed to measure the attainment of the objectives. These evaluations indicate when a student has mastered specific performances and provide information for instructional decisions.

Individualized instruction--A learner-centered method of instruction in which the criteria for making

instructional decisions is derived from the special goals, objectives, interests, abilities, aptitudes, and needs of individual students. An individualized learning prescription is developed for the student based upon the learner's criteria. This method requires continuous monitoring of student progress as a basis for initiating changes in the student's learning experiences.

Open-entry/open-exit system--An instructional provision wherein a student may enroll in an educational program at any time on a space available basis if he/she has met the selection criteria and leave the program at any time with a documented record of his/her performance achievement.

Performance objective--A statement which stipulates the specific behavior the learner must exhibit, the minimum level of proficiency which the student must attain, and the conditions under which the learner will be evaluated.

Performance-based education--Instruction based upon performance objectives and the student's observable demonstration of knowledge and skills that are developed. Performance-based education is encompassed by the broader competency-based education.

Programmed instruction--An approach or method of individualizing instruction in which a form of media (print, audio, etc.) is used in the planned presentation and review of material.

Self-pacing--Instructional technique used in individualizing learning in which the student is allowed to progress at his/her own learning rate. Thus, he/she may move as fast or slow as is necessary for him/her to achieve proficiency (also referred to as individual pacing).

Vocational education--Instruction, not leading to a baccalaureate degree, which provides for the development of occupational proficiency for gainful employment. For purposes of this study, orientation and exploratory courses are not included.

## Plan for Reporting the Study

The following plan was utilized for reporting this research study:

Chapter two, Review of the Literature and Previous Research, provides a summary of books, periodicals, pamphlets, state laws, State Board of Education Administrative Rules, speeches, and research projects pertinent to this area of study.

Chapter three, Design of the Study, encompasses a sequential description of the planning, organization, and implementation of the study including the populations surveyed, construction of the survey instrument, validation of the survey instrument, reliability of the survey instrument, administration of the survey instrument, procedures for analyzing the data, and a summary.

Chapter four, Analysis of the Data, presents the data and describes the procedures used in the summary, tabulation, analysis, and interpretation of the data.

Chapter five, Summary, Conclusions, and Recommendations, presents a summary of the findings based upon an analysis of the data, conclusions and implications drawn from the study, and recommendations for program development and additional research.

## CHAPTER II

## REVIEW OF LITERATURE AND PREVIOUS RESEARCH

Two major factors have led to the development of competency-based vocational education, hereafter referred to as CBVE, and individualized instruction--accountability and personalization.[1] With increasing budgets and decreasing funds in the seventies, legislators and the general public began to demand that educational systems become more accountable for their use of resources and the development of their products, the students. At the same time, increased mobility and greater job specialization brought a desire for greater personalization in education.[2]

An individualized system of competency-based vocational instruction is an effective way to meet the requests for accountability and personalization. In this individualized system, students would be able to

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[1] W. Robert Houston, "Competency-Based Education," in Exploring Competency-Based Education, ed. W. Robert Houston (Berkeley: McCutchan Publishing Corporation, 1974).

[2] Ibid.

enter, progress through, and exit a vocational program as they are ready through an open-entry/open-exit policy.[1]

## Need for Open-Entry/Open-Exit Systems of Individualized Competency-Based Vocational Education Instruction

Three of the important factors which have been responsible for the development of open-entry/open-exit systems of individualized competency-based vocational instruction are the relevancy, cost, and time of the educational program.[2] Mills discussed the need for competency-based vocational education in his address to the Annual Vocational and Adult Summer Conference in August, 1975:

> Florida's vocational system must meet the needs of the state by providing the most needed training to the most people in the least time and, yes!, at the least cost.
>
> Competency-based Vocational Education in Florida is now being designed for these purposes, and it is possible for this competency-based system to guarantee that Florida's Vocational Education will be relevant to these needs. Competency-based education will guarantee that all instruction will meet a real economics need and that each learner will be instructed only in competencies s(he) needs to master. It will guarantee that all learners will develop the competencies needed for a job, at the required level, before being certified; and finally, it is possible for competency-based education to guarantee that the operation of the educational system will be as economical of time and resources as the state of the arts permits.[3]

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[1] Joe D. Mills, "Competency-Based Vocational Education: Miracle or Monster," Florida Vocational Journal 1 (October 1975).

[2] Ibid.

[3] Ibid., p. 5.

student competency:

> Why is measuring student competencies so important? The answer goes back to accountability, which appears to be the driving force behind CBVE. In Vocational Education, accountability means assurance the training is effective and efficient in reaching stated goals and that students who reach those goals are employable in occupations related to their training.[1]

Hirst cites seven advantages of a Competency-Based Vocational Education program. First, need for materials will be reduced by 25 per cent. A success-oriented atmosphere in which students compete with standards, not other students, is created. Third, a high correlation between instruction and job requirements is developed. Performance, not time, becomes the base for instruction. Fifth, teachers are challenged to create a meaningful learning atmosphere and experiences. Positive feedback is provided on the program. Finally, students become more responsible for their learning.[2]

Hirst's concepts of competency-based vocational instruction encompasses the open-entry/open-exit policy. He proposed that instruction is based upon the student's mastery of competencies, not the amount of time he/she has spent in the learning process.

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[1]J. Dale Oliver, "Measuring Student Competencies," American Vocational Journal 53 (January 1978): 48.

[2]Ben A. Hirst, Jr., "The Components of Competency-Based Vocational Education," American Vocational Journal 52 (November 1977).

In his speech, Mills stressed that competencies developed, not time, should be the basis for completion of vocational instruction. Through competency-based vocational instruction, he maintained that students will receive instruction only in those competencies required for the occupation in which he/she is trained. This would result in effective and efficient use of time, material, and human resources.

West described the need and rationale for developing competency-based vocational instruction:

> There is a growing public demand that institutions be held accountable for their actions as well as the human and financial resources committed to them. In the vocational education sphere, this is evidenced by the strong mandate for accountability in the new vocational act.
>
> Vocational educators are being called upon not only to announce their goals in measureable terms but also to justify the processes for achieving them. The alternative seems to be a negative one--loss of credibility, loss of financial support, and the yielding of leadership in Vocational Education to other agencies.
>
> In the quest for a solution to this stubbornly complex problem of accountability, vocational educators are embracing the concept of performance-based vocational education (PBVE). . . . PBVE is gaining vigor nationwide because it not only facilitates accountability, but also results in more effective program planning and the personalization of Vocational Education.[1]

In a recent article Oliver discussed the importance of competency-based vocational instruction and measuring

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[1]B. R. West, "PBVE Calls for Orderly Transition," American Vocational Journal 51 (December 1976): 25.

A number of advantages for implementing an open-entry/open-exit system of Competency-Based Vocational Education were proposed by Knaak. The

> . . . learners progress at their own best rate to a mastery of the instructional content, and more learners achieve mastery than is possible under a group-centered instructional system. Students learn according to their preferred learning style, build up confidence through success in learning, and often speed up their learning. The students learn to help each other rather than compete for grades, and peer assistance is optimized. The instructors perform as managers of learning instead of information dispensers; their efficiency is increased, and consistency in presentation of instructional content is ensured.[1]

From the previous discussions, it can be concluded that accountability of time, material, and human resources and personalization in education has led to the development of individualized competency-based vocational instruction. Although some of those cited did not specifically mentioned the open-entry/open-exit systems by name, all of them emphasized that time should not be a factor in providing instruction. Thus, a basis is provided for the study of planning and implementing an open-entry/open-exit system of individualized competency-based vocational instruction for high school students in Florida.

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[1]William C. Knaak, "The Anatomy of a Competency-Based School," American Vocational Journal 52 (November 1977): 38.

## Competency-Based Vocational Education

Competency-based vocational education (CBVE) is an outgrowth of the total competency-based education (CBE) movement. For this reason, the discussion in this section will include reviews on characteristics, problems, and recommendations of CBE as well as specific references to CBVE. Within the reviews of the characteristics, problems, and recommendations, the references will be organized under four paragraph headings to synthesize the data obtained: policies and procedures; curriculum and instruction; staffing and staff development; and facilities, equipment, and materials.

### Characteristics

An open-entry/open-exit system of individualized competency-based vocational instruction possesses a number of unique characteristics which do not pertain to the traditional program. Those pertaining to the competency-based instruction are included in this section.

Policies and procedures. In a comparison of traditional and competency-based educational policies and procedures, Johnson identified the following practical characteristics of CBE:

> "1. Entrance requirements are not of paramount concern. Students start where they are. If they are not ready, they are helped to become ready.
> "2. Flexible scheduling of learning activities is essential to provide for individual

differences among students. This allows for year-round educational opportunities and numerous possible times for enrollment.

"3. There must first be consensus as to the mission of the program; then an organization and operational strategy judged most effective and efficient in helping students acquire the competencies they are seeking."[1]

The first and second characteristics presented by Johnson encompass the open-entry/open-exit concept. He discussed the system from an entrance standpoint--students may enroll at numerous times and start where they are.

Elam stated, "The emphasis is on exit, not entrance requirements."[2] He elaborated by saying that traditional education programs have emphasized entrance requirements, whereas a CBE program establishes and enforces exit standards which must be achieved.[3]

In his discussion of competency-based education, Burdin emphasized the importance of flexible time requirements. He concluded that since a program should be designed to meet the needs of individual students, then the time would vary to complete the program. Thus,

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[1]Charles E. Johnson, "Competency-Based and Traditional Education Practices Compared," Journal of Teacher Education 25 (Winter 1974): 355.

[2]S. Elam, Performance-Based Teacher Education: What is the State of the Art? (Washington, D. C.: American Association of Colleges for Teacher Education, 1971), p. 8.

[3]Ibid.

established time units such as semesters or quarters would be eliminated.[1]

Walejko indicated that students in competency-based vocational education systems:

> . . . usually move through the curriculum at their own learning rate. Motivation is generally much higher because of factors such as variable credit, open-entry/open-exit, few learning barriers, employment on completion, and a success-oriented philosophy.[2]

In their study of open-entry/open-exit competency-based vocational programs in Oklahoma, Greenwood and Pestle noted that students could enter a program as needed, progress through learning activities at their own pace, and exit the program when desired competencies had been developed.[3]

Knaak identified the characteristics of the open-entry/open-exit system of Competency-Based Vocational Education at the 916 Area Vo-Tech Institute in White Bear Lake, Minnesota. The school offers training in forty-six occupations to 1,100 shared-time seniors from fourteen

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[1]Joel Burdin, Three Views of Competency-Based Teacher Education: I Theory (Bloomington, Indiana: Phi Delta Kappa, 1974).

[2]Charles Walejko, "Managing CBVE in the Classroom," American Vocational Journal 52 (December 1977): 34.

[3]Kathryn M. Greenwood and Ruth E. Pestle, Exploratory Study of Administrative Barriers to Installation of Open Entry-Exit Work Experiences in Cooperative Clothing Retailing Programs (Washington, D. C.: U.S. Office of Education, 1977).

senior high schools. Courses are fully articulated between the secondary and postsecondary levels. Learning takes place in a personalized self-paced system, but students are expected to attend classes regularly.[1]

A modified form of open-entry is utilized. On the first Monday of each month, new students are enrolled as space is available. But students exit or graduate as they complete the learning prescribed. Learners are given one of two grades: M for mastery or T for test-out. Instruction occurs on a year-round basis allowing students a one-week vacation during the calendar year.[2]

Knaak explained that:

> . . . student progress is reported via time-cards which make up the input system for a computerized student management system. Each month the student receives a print-out report of the tasks mastered or tested-out, standard task hours completed, estimated program completion time based on present rate of progress, number of absences and tardies, and a graphic representation of the student's progress measured against an established time standard.[3]

Curriculum and instruction. Johnson identified a number of characteristics for competency-based education which refer to the area of curriculum and instruction:

1. Student achievement is determined by the learner's ability to perform tasks effectively and efficiently

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[1]Knaak, "The Anatomy of a Competency-Based School."

[2]Ibid. [3]Ibid., p. 37.

2. The amount of time which a student spends in learning is determined by his achievement, not an established time frame

3. Competency is determined by the student's performance at the established level of proficiency

4. Flexibility is provided in the method, place, and time of learning

5. Students are provided practical experience through on-the-job training

6. Content and learning activities are presented in learning activity packages or modules

7. Students are provided with a variety of learning experiences from which to choose to achieve the same performance objectives and develop the same competency

8. Humanism and personalization are incorporated in the competency-based educational program

9. The curriculum is continually revised according to systematic evaluation and feedback

10. Competencies are developed through the involvement of practitioners, educators, students, and the community[1]

Johnson's "practical" characteristics emphasized that competency-based instruction is centered around predetermined objectives and specific levels of proficiency.

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[1]Johnson, "Competency-Based and Traditional Education Practices Compared."

He stated that completion of a program of instruction is contingent upon the student's mastery of the desired competencies, not upon the amount of time he has spent in the program.

Elam identified five essential elements of competency-based teacher education which are generic in nature and are relevant to any competency-based education system:

> "1. The competencies (knowledge, skills, behavior) demonstrated by the student are derived from explicit conceptions of roles, are stated to enable assessment of a student's behavior in relation to specific competencies, and are made public in advance.
> "2. The criteria used in assessing competencies are based upon, specified competencies, are explicit in designating expected levels of mastery under specified conditions, are made public in advance.
> "3. Assessment of the student's competency is primarily based upon his performance, considers the student's knowledge relevant to planning for, analyzing, interpreting, or evaluating situations or behavior, and is aimed at objectivity.
> "4. The student's demonstrated competency determines his rate of progress through a program rather than time or completion of a course.
> "5. The instructional program is designed to facilitate the development and assessment of the student's attainment of competencies identified."[1]

Elam's fourth essential element of competency-based teacher education focused on the importance of eliminating time as a factor in instruction. He emphasized

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[1]Elam, Performance-Based Teacher Education, pp. 7-8.

that the mastering of competencies should determine a student's rate of progress through a program, not time or completion date of a course.

Elam explained that feedback is essential to the improvement of instruction.[1] Thus, vocational personnel should conduct placement and follow-up studies to update and upgrade curriculum and instruction. The author emphasized the importance of field-centered activities. Ideally, vocational students would receive on-the-job training in the business and industrial community in conjunction with their classroom and laboratory experiences.

Burdin also stressed the importance of competency development by stating that the competencies should be directly related to the tasks which will be performed by the student. He indicated that the students would only have mastered the competencies when they had performed them at the specified level of competence.[2]

In his article, "Designing Competency-Based Instructional Systems," Houston asserted:

> Competency-based education (CBE) is characterized by its rigorous reliance on objectives which set the parameters for both instruction and evaluation. Such objectives are derived from the role of the

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[1] Ibid.

[2] Burdin, Three Views of Competency-Based Teacher Education.

> practitioner rather than from the logical structure of the traditional disciplines. Objectives are clearly stated, explicit, defined in terms of what the learner is to demonstrate, and made public.[1]

Mills emphasized that competency-based vocational instruction systems should include the following elements:

> "1. A system that permits more precision in the identification of competencies.
> "2. Formats that would permit individualization and non-time-bound competency attainment.
> "3. Methodologies that provide alternative routes to competence
> "4. Evaluation models with potential for measuring competency qualitatively rather than quantitatively
> "5. Interdisciplinary cooperation--with basic education--that requires more specificity and clarity of training
> "6. Improved linkages with the field which, in turn, (a) makes possible needs assessments, reality-oriented experiences, validation of program components, etc.; (b) increases expectations for relevance; and (c) increases recognition of legitimate means of continuing competency attainment on the job."[2]

Mills explained that "the general meaning of the term competency considers two elements--first, the identification of the task or defined role, and, second, the indication of the knowledge, ability, or other characteristics needed to perform the task or role."[3]

Mills emphasized that two essential requirements

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[1]W. Robert Houston, "Designing Competency-Based Instructional Systems," Journal of Teacher Education 24 (Fall 1973): 200.

[2]Mills, "Competency-Based Vocational Education," p. 7.

[3]Ibid.

of competency-based vocational education are that it be non-time bound and that instruction be individualized. He expressed the need for designing different learning experiences to develop the same competencies. Mills discussed the importance of involving the business community to keep curriculum and instruction relevant.[1]

Oliver indicated that "CBVE is based upon three essentials: (1) specifying the job-related tasks in advance, (2) providing instruction in the tasks, and (3) measuring and certifying that students can perform the tasks." [2] Oliver's view of CBVE appears more limited and may be better characterized as performance-based vocational education.

Johnson and Harrington described CBVE in the publication Delivering Competency-Based Vocational Education:

> CBVE focuses on providing each learner with the specific skills and knowledge required to obtain and hold a job in the field of his/her choice. Competency-Based Vocational Education relies on these assumptions:
> "1. The skills and knowledges that students learn should be directly related to the duties and responsibilities they will have to perform on the job.
> "2. These skills and areas of knowledge, and the means for evaluating their attainment, should be specified in advance and made known to the students.
> "3. Students should be provided with whatever instructional experiences they need to

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[1] Ibid.

[2] Oliver, "Measuring Student Competencies," p. 48.

attain the skills and knowledge required by the jobs they are aiming for."[1]

Johnson's and Harrington's description of CBVE implies the need for variable time requirements. They indicated that the content and proficiency level must be fixed to meet the standards of business and industry. Since it has been established by leading learning theorists, such as Combs, Rogers, and Glasser,[2] that individuals learn in different ways and at different rates, then the system should provide flexibility in time requirements.

In a 1977 American Vocational Journal article, Hirst describes Competency-Based Vocational Education (CBVE) as a "systematic approach to instruction, aimed at accountability, based on job-derived standards, and supported by a feedback mechanism."[3] He went on to identify ten components of a Competency-Based Vocational Education Instructional System:

1. Determining the realistic employment opportunities that exist for students

2. Identifying the tasks which workers actually

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[1]C. Tracy Harrington and Barbara F. Johnson, Delivering Competency-Based Vocational Instruction--A Teacher's Guide (Tallahassee: Florida Department of Education, 1977), p. iii.

[2]Dunn, "Individualized Instruction."

[3]Hirst, "The Components of Competency-Based Vocational Education," p. 32.

perform on their jobs

3. Determining the importance and sequential order of tasks by obtaining and/or developing occupational inventories of the tasks

4. Analyzing and organizing the occupational survey information using criteria such as frequency, level of difficulty, and commonality of tasks to develop and sequence performance objectives and criterion-referenced measurements

5. Analyzing existing instructional materials and media to determine those which correlate with the objectives and measurements

6. Developing additional instructional materials and media which are needed

7. Producing lesson plans which will reflect the role of the student and the teacher in the learning process

8. Evaluating materials, media, and lesson plans to determine their effectiveness

9. Revising objectives, materials, media, and lesson plans based upon the testing and feedback

10. Systematically reviewing and modifying the occupational inventory of task analyses as tasks of workers on the job change[1]

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[1]Ibid.

According to Walejko, the students choose their occupational goals in CBVE. The teacher develops the steps necessary to achieve those goals. Students should be oriented to the system including the following aspects: attendance procedures, class time schedule, individualized instruction, competency-based instruction, and on-the-job training.[1]

In the Woodruff system described by Walejko, students are tested in math and reading skills. Deficiency in one or both areas will result in remedial work for the student. Occupational competencies are arranged in sequential order. Students are pretested for proficiency in each competency as they proceed through their learning plan. If the student does not pass at the desired level, he/she proceeds through the instructional material and is given a posttest when he/she feels the competency has been developed.[2]

Student motivation is generally higher in an open-entry/open-exit system of individualized competency-based vocational instruction according to Walejko because the student may move through the program at his/her own pace. The student progresses as he/she masters the required competencies to meet his/her objectives.

The importance of variable time in teaching

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[1]Walejko, "Managing CBVE in the Classroom."

[2]Ibid.

students with different aptitudes is stressed by Pucel and Knaak:

> If one accepts the premise that most people can learn any content given a sufficient amount of time, it is apparent that instructional strategies based upon a fixed-time model are no longer always appropriate. It is also apparent that most students can attain a specified level of proficiency, and therefore, it is not reasonable to assume that students will necessarily attain different levels of proficiency. If a student does not master a task within a certain period of time, more time should be allotted. One would expect that most interested students could master the content if they are given a sufficient amount of time and do not have any severe physical or mental handicaps.[1]

These authors recommend a vocational instruction model which includes "fixed-content, variable-time, and fixed proficiency."[2] This system will assist all students who wish to enter a particular occupation with the development of the skills and knowledge required to enter the occupation, regardless of the amount of time it takes each individual to master the tasks. Pucel and Knaak explained that the fixed-content and fixed proficiencies are determined by the tasks and the degree of competence required in the occupations.[3]

Russell identified a feature of competency-based vocational education which has not been previously

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[1]David J. Pucel and William C. Knaak, Individualizing Vocational and Technical Education (Columbis, Ohio: Charles E. Merrill Publishing Company, 1975), p. 17.

[2]Ibid., p. 19. [3]Ibid.

discussed: He stated that a CBVE program features: "Pre-testing students upon entry to determine the skills they already have as well as objectives that need to be achieved."[1] He added that the program fosters: "Allowing each student to proceed to subsequent instruction as soon as performance objectives are attained."[2] Thus, learning would be self-paced.

Staffing and staff development. Johnson indicated that the following characteristics concerning staffing and staff development should be found in a competency-based education program:

> "1. The criterion for a 'good' instructor is the extent to which he or she is effective and efficient in helping students acquire the competencies they are seeking.
> "2. Criteria for staff selection are based on the needs of the instructional components of the program. Differentiated staffing for instruction and team teaching are commonly practiced.
> "3. Instructors are held accountable for the extent to which students acquire the desired competencies within the limits dicated by the nature of their abilities."[3]

Pucel and Knaak indicated that staff members are an important ingredient to a successful individualized

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[1]Earl B. Russell, "Examples of CBVE and Where to Find them," American Vocational Journal 53 (May 1978): 55.

[2]Ibid.

[3]Johnson, "Competency-Based and Traditional Education Practices Compared."

competency-based vocational system. They emphasized that the teachers, supervisors, administrators, and consultants must be competent or willing to be trained in the development of the system.[1]

Greenwood and Pestle stipulated that administrative support of the system and staff is essential to the effective implementation of an open-entry/open-exit system of competency-based vocational education.[2]

Facilities, equipment, and materials. Pucel and Knaak concurred that relevant instructional materials are needed for effective instruction. The authors indicated that the materials must be developed according to the tasks and acceptable standards of industry.[3]

Burdin discussed the extensive use of technology in competency-based education. He maintained that computers are required for CBE. He identified other learning tools which should be available in a CBE program: videotape recorders, closed-circuit television, slide/tape projectors, and other audiovisual aids.[4]

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[1]Pucel and Knaak, Individualizing Vocational and Technical Education.

[2]Greenwood and Pestle, Exploratory Study of Administrative Barriers.

[3]Pucel and Knaak, Individualizing Vocational and Technical Education.

[4]Burdin, Three Views of Competency-Based Teacher Education.

In making a financial analysis of the open-entry/open-exit system of Competency-Based Vocational Education at the 916 Area Vo-Tech Institute, Knaak revealed that the overall operating and capital costs are comparable to other educational institutions in Minnesota operating on a traditional basis. However, the cost per student is less as a result of accelerated completions. Although the costs of audiovisual equipment are greater, the cost of laboratory equipment is less because of the rotational efficiency in the school.[1]

Harrington and Johnson stressed the importance of adequate instructional media including: print materials, audio aids, still visuals, motion visuals, and laboratory equipment. They indicated that media must be selected to meet the learning objectives.[2] Thus, in competency-based vocational education, sufficient equipment and materials must be provided to achieve effective learning.

Problems

Whenever a new and innovative instructional system is implemented, certain problems may be encountered. Some of these are presented here for competency-based vocational education.

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[1]Knaak, "The Anatomy of a Competency-Based School."

[2]Harrington and Johnson, Delivering Competency-Based Vocational Instruction--A Teacher's Guide.

Policies and procedures. Schmeider identified two potential problems in the development of a competency-based education system: the implementation of a competency-based certification system as well as the economic, legal, and statutory effects of competency-based certification on the schools and the state department of education.[1]

In their work with the open-entry/open-exit competency-based retailing programs in Oklahoma, Greenwood and Pestle noted three important barriers in the area of policies and procedures. As indicated by Schmeider, they found difficulty in establishing credit for competency-based achievements of students. They discovered that the enrollment practices were not flexible to allow students to enter and exit as needed. The researchers also detected difficulty with established state accreditation standards. The ratio of students to teachers was difficult to maintain with the fluctuation of students in a program.[2]

Jarrett related several other problems in this area: (1) logistical problems of scheduling classrooms, equipment, and transportation; (2) unpredictable turnover rates in student enrollment; and (3) difficulty in working

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[1]A. A. Schmeider, Competency-Based Education: The State of the Scene (Washington, D. C.: American Association of Colleges for Teacher Education, 1973).

[2]Greenwood and Pestle, Exploratory Study of Administrative Barriers.

with accrediting associations and licensing agencies.[1]

Three additional problems in policies and procedures were identified by Burke. He cited problems in determining selection criteria for admission of students to programs, obtaining research funds, and changing the institutional policies and procedures.[2]

Curriculum and instruction. Several curriculum and instruction problems have been identified by Burdin: development and operational costs for time to select and develop competencies, to create instructional materials, to develop assessment techniques, and to handle additional recordkeeping.[3]

Jarrett also indicated that maintenance of student records was a problem in the five competency-based programs he studied. He also noted difficulty in evaluation of competencies for credit and development of appropriate learning experiences.[4]

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[1]Jarrett, "Implications of Implementing Competency-Based Education."

[2]J. Bruce Burke, "Curriculum Design," in Competency-Based Teacher Education, ed. W. Robert Houston and Robert B. Howsan (Chicago: Science Research Associates, 1972).

[3]Burdin, Three Views of Competency-Based Teacher Education.

[4]Jarrett, "Implications of Implementing Competency-Based Education."

Burke identified some curriculum and instruction problems: (1) selecting and creating appropriate objectives; (2) providing variety and flexibility in learning experiences for the same competencies and objectives; and (3) isolating students from the teacher.[1]

Schmeider discussed the problem of continually updating and revising curriculum according to society changes. He also discussed the problems of measuring student's competence and monitoring their progress. Like Burdin, Jarrett, and Burke, he expressed the concern about the identification and development of competencies and specific performance objectives.[2]

Burns discussed some specific problems associated with the implementation of competency-based education and the development of objectives and correlated learning activities. These difficulties included: (1) determining the scope of the objectives; (2) creating and writing specific performance objectives; (3) establishing criteria for grading student's achievement of objectives; (4) overcoming the constraints of inappropriate and/or insufficient instructional materials; (5) providing for variations in students' ability, aptitude, interests, and other individual factors; and (6) planning in relation to the

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[1]Burke, "Curriculum Design."

[2]Schmeider, Competency-Based Education: The State of the Scene.

institutional policies and procedures.[1]

Similarly, Jones elaborated on the difficulty in selecting and implementing specific performance objectives and in developing related learning experiences. The author anticipated problems with assessment, grading, student selection, and creation of modules in the implementation of a competency-based instructional system.[2]

In his article "Managing CBVE in the Classroom," Walejko identifies several management problems which must be solved before the CBVE system is implemented:

1. Monitoring student progress to check and record achievement over short periods of time

2. Management of instructor's time to work with individual students

3. Duplication of handout materials, tapes, slides, and aids

4. Developing a plan to revise the curriculum[3]

Greenwood and Pestle noted certain problems in curriculum and instruction with the open-entry/open-exit programs in Oklahoma: (1) difficulty in conducting

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[1]Richard W. Burns, "The Central Notion: Explicit Objectives," in Competency-Based Teacher Education, ed. W. Robert Houston and Robert B. Howsan (Chicago: Science Research Associates, 1972).

[2]Howard L. Jones, "Implementation of Programs," in Competency-Based Teacher Education, ed. W. Robert Houston and Robert B. Howsan (Chicago: Science Research Associates, 1972).

[3]Walejko, "Managing CBVE in the Classroom."

pretests and posttests during the same time other class activities are occurring; (2) limited variety of learning experiences from which students could choose; (3) lack of time for teachers to work with individual students; and (4) time consuming processes of grading and evaluation.[1]

Staffing and staff development. Burke discussed four potential problems of staffing and staff development in implementing competency-based education. He anticipated difficulties in: developing conceptual clarity of the program among the staff; orientation and retraining of faculty and staff; gaining support and acceptance from other school personnel and the community; and soliciting cooperation from teachers' organizations.[2]

Bippus maintained that the major problem in developing competency-based education programs is the selection of well-qualified, enthusiastic faculty and staff.[3] Schmeider indicated that there is a severe shortage of good teachers and resource personnel.[4]

A number of problems were identified by

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[1]Greenwood and Pestle, Exploratory Study of Administrative Barriers.

[2]Burke, "Curriculum Design."

[3]Stanley L. Bippus, "A New Look at Competency-Based Education," NASSP Bulletin 60 (October 1976).

[4]Schmeider, Competency-Based Education: The State of the Scene.

Greenwood and Pestle in their study of the Oklahoma systems: (1) poor understanding of educational concepts by some teachers; (2) difficulty in organizing activities by some teachers; (3) adjusting teacher workloads to fluctuating enrollments; (4) adapting existing materials for use; and (5) lack of acceptance of the lifelong concept of learning.[1]

Facilities, equipment, and materials. Greenwood and Pestle also mentioned three problems in the area of facilities, equipment, and materials. The first was the lack of commercially prepared competency-based instructional materials for use with individual students. Students did not have adequate access to learning materials. In addition, there was a lack of separate learning stations for students.[2]

Walejko also indicated a problem of access to materials by students. He identified a lack of storage for adequate supplies of materials. He indicated a problem in developing a system for reordering materials and supplies.[3]

Two additional problems were identified by Burke:

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[1]Greenwood and Pestle, Exploratory Study of Administrative Barriers.

[2]Ibid.

[3]Walejko, "Managing CBVE in the Classroom."

obtaining financial support for the required variety and quantity of software materials and creating a system of coordination for the development of appropriate learning materials.[1]

Recommendations

Some recommendations for the implementation of a competency-based vocational program are presented in this section.

Policies and procedures. Greenwood and Pestle made the following recommendations concerning policies and procedures: (1) state department of education personnel develop and adopt a system for allocating competency-based credits; (2) state department of education personnel development a flexible student-teacher ratio for the open-entry/open-exit systems; (3) state and local administrators cooperate to initiate open-enetry/open-exit systems of competency-based vocational education.[2]

Some recommendations were proposed by local vocational administrators who have been involved with the implementation of open-entry/open-exit vocational systems. Upton suggested that the Florida program review standards include criteria pertaining to

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[1]Burke, "Curriculum Design."

[2]Greenwood and Pestle, Exploratory Study of Administrative Barriers.

open-entry/open-exit vocational instruction. He also recommended that FTE Funding formulaes and procedures be revised to provide funds for high school students who enter the programs at different times.[1]

Lauff recommended that compulsory school attendance laws be removed from high school students who are involved in an open-entry/open-exit system. This requirement was removed by a judge for high school students attending the Ocala Community High School.[2]

Dillon suggested that budgets for instructional materials and their duplication be increased to successfully implement the open-entry/open-exit system. He also indicated that traditional letter grades of A, B, C, D, F should not have to be given to high school students since the important factor is whether or not they have mastered the desired competencies.[3]

Curriculum and instruction. Greenwood and Pestle also offered a recommendation for the area of curriculum and instruction. They suggested that the department of education personnel update curriculum materials to meet

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[1]Ralph E. Upton, Director, St. Augustine Technical Center, personal interview, 19 April 1978.

[2]Samuel Lauff, Principal, Ocala Community High School, personal interview, 17 March 1978.

[3]Charles Dillon, Assistant Principal, Ocala Community High School, personal interview, 17 March 1978.

the needs of students and teachers in a CBVE program.[1]

Hirst suggested that a success-oriented setting be established in which competition is reduced. Emphasis should be placed on the student's achievement of a standard, not his/her comparative attainment with other students. He went on to stress the importance of feedback to improve the teaching methods, materials, and media.[2]

Staffing and staff development. Greenwood and Pestle indicated that school systems must find ways to hire additional instructional staff to stay within teacher-student ratios established by the state department of education. They suggested that university personnel and state department of education personnel plan pre-service education, inservice training, and information programs to assist the teachers and other staff in the development of open-entry/open-exit systems of competency-based vocational education.[3]

Greenwood and Pestle concurred with McKinney on the importance of administrative support to the success of the program. Commitment from the administrators, as

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[1]Greenwood and Pestle, Exploratory Study of Administrative Barriers.

[2]Hirst, "The Components of Competency-Based Vocational Education."

[3]Greenwood and Pestle, Exploratory Study of Administrative Barriers.

well as the teachers, is essential.[1]

Facilities, equipment, and materials. McKinney stressed that sufficient funding for operating materials and supplies must be provided for effective learning. He indicated that appropriate competency-based materials must be utilized.[2]

In an interview, Dorsch suggested that the V-TECS materials be expanded to include learning activities and evaluation instruments which are correlated to the performance objectives. She also recommended that a system for informing personnel of new learning resources be developed on a statewide basis.[3]

The preceding reviews of the literature and previous research have concentrated on competency-based vocational education and open-entry/open-exit policies. The following reviews will encompass individualized vocational instruction and the open-entry/open-exit system.

## Individualized Vocational Instruction

In recent years individualized instruction has

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[1]Stephen A. McKinney, "Competency-Based on Carpentry," American Vocational Journal 53 (April 1978).

[2]Ibid.

[3]Doris Dorsch, Staff Development Specialist, St. Augustine Technical Center, personal interview, 20 April 1978.

received a variety of definitions and interpretations. However, all of them stress an increased emphasis upon the student and his role in the learning process.

Edling provided the following description of individualized instruction:

> Appropriate learning experiences are assigned to each student. In order to determine what is appropriate for each learner, some type of diagnostic procedure is used. Once these learning experiences are identified, instruction is mainly self-directed, self-administered, and scheduled, within the school's broad time constraints, at a time convenient to the learner.[1]

## Characteristics

In his detailed analysis of this educational approach, Edling presents four types of individualized instruction:

> "1. Individually diagnosed and prescribed instruction--the school determines appropriate objectives for the student and also prescribes appropriate instructional strategies for the student's mastering those objectives.
> "2. Personalized instruction--the student selects appropriate objectives, and the school prescribes instructional strategies for the student's mastery of those objectives.
> "3. Self-directed instruction--the school determines appropriate objectives for the student, and the student selects the instructional strategy to be utilized in his mastering those objectives.

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[1]Jack V. Edling, Individualized Instruction: A Manual for Administrators (Corvallis, Oregon: Teaching Research Division, Oregon State System of Higher Education, 1970), p. 7.

"4. Independent study--the student selects appropriate instructional objectives and selects the strategy to be followed in his mastery of those objectives."[1]

Policies and procedures. Ikenberry provided the following specification for an individualized system:

> The instructional system shall be independent of time restrictions in the sense that individuals shall be able to progress at their own rates, shall be able to begin the learning sequence when it seems educationally desirable and shall be able to continue the instructional process until mastery has been achieved.[2]

Lewis indicated that individualized instruction is organized on an open plan to provide flexibility. He maintained that flexible modular scheduling is implemented to accommodate the individual needs of students. The author stipulated that students are placed in a nongraded learning environment through phasing which is based upon the learner's knowledge, aptitude, and learning style. Lewis emphasized that a goal-oriented grading system is included.[3]

Pucel and Knaak propose individualized instruction as a means to achieve the goals of the National Advisory

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[1]Ibid., pp. 7-8.

[2]Stanley O. Ikenberry, Instructional Systems in Higher Education--Specifications for Individualization (University Park, Pennsylvania: Center for Study of Higher Education, Pennsylvania State University, 1970).

[3]James Lewis, Jr., Administrator's Complete Guide to Individualized Instruction: A Professional Handbook (West Nyack, New York: Parker Publishing Company, 1977).

Council on Vocational Education:

> One mechanism or approach to revitalizing the educational system is individualized instruction. Individualized instruction attempts to adapt the educational program to the specific needs of a student. It is aimed at assisting the student to develop from the point he is at currently to a place where he would like to be in the future. This characteristic makes it very compatible with the philosophy that people should be able to enter and exit the educational system throughout their lifetimes. The particular competencies which the student lacks in order to achieve the objective that he has for the future become the basis for developing an instructional program for the student.[1]

Curriculum and instruction. In his description of an individualized instructional system, Edling elaborated on the student's involvement in selecting, administering, directing, and scheduling his/her learning experiences. He indicated that there should be broad time constraints to provide flexibility for the student to progress through his learning activities as he/she is ready.[2]

In Interchange, Gibbons traced six types of individualized instructional approaches which have been used in school settings:

"1. Tutoring
"2. Correspondence courses
"3. Self-paced unit plans
"4. Programmed and computerized instruction

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[1]Pucel and Knaak, Individualizing Vocational and Technical Education, p. 10.

[2]Edling, Individualized Instruction.

"5. Independent study programs
"6. Grouping for individualization"[1]

The importance of flexible time in individualizing instruction is reflected in Gibbons' third type, self-paced unit plans. Unless variable time is provided, students cannot progress at their own rates of learning. Removal of the time factor is implied in programmed learning, computerized education, and independent study for students are expected to accomplish one task before progressing to another one.

A set of specifications for utilizing the systems approach in individualizing instruction has been proposed by Ikenberry:

"1. The objectives of instruction shall be relevant to the immediate and long-term needs of the learner, and the learner shall be cognizant of this relevance.
"2. Educational objectives shall be stated in unambiguous terms which make clear the intellectual competencies to be developed by the learner.
"3. The instructional system shall maximize active involvement in the learning process.
"4. The instructional system shall provide accurate, timely and formative feedback to the learner regarding his progress toward learning goals.
"5. The instructional system shall be designed to maximize the principles of positive reinforcement and eliminate or minimize those aspects known or suspected to be aversive to the learner.

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[1]Maurice Gibbons, "What is Individualized Instruction?" Interchange 1 (1970): 28-52.

"6. The instructional system shall insure appropriate sequencing of learning experiences, shall be capable of diagnosis of learner deficiencies and adjust the instructional sequence appropriately.
"7. The instructional system shall solicit reliable and timely information on individual student learning progress and shall make adaptations appropriate to the individual learner."[1]

Ikenberry began his description of the individualized instruction system by proclaiming that time restraints must be eliminated to allow students to progress at their own individual rates of learning. He stresses that the student shall be able to enter the instructional program when he/she is ready and continue his/her learning until he/she has mastered the necessary skills, knowledges, and attitudes.

Krebs and Krebs identified factors which the teacher of vocational students should consider in individualizing instruction:

> . . . age, character structure/personality, cultural background, educational level, educational subject matter and training, family composition, general abilities--basic skills, handicaps, interests, learning style, parental attitudes, physical strength and coordination, race, self-concept, special needs (disadvantaged) characteristics, special talents, standard of living, and vocational maturity.[2]

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[1]Ikenberry, Instructional Systems, pp. 13-14.

[2]Alfred H. Krebs and Jean E. Krebs, "Learning About the Individual Vocational Student," The Individual and His Education (Washington, D. C.: American Vocational Association, 1972), pp. 106-115.

Thus, individualized vocational instruction is based upon the individual learner's goals, interests, abilities, aptitudes, and needs. With competency-based vocational education, prescriptions are developed correlating the student's criteria with the competencies needed for specific occupational training. This requires flexibility in time.

An important part of the individualization process is the initial setting of goals. It is important that the teacher assist the student in a realistic assessment and examination of his personal abilities, interests, and goals as well as the requirements and conditions of a particular job. Harrington designated three parts to the goal-setting process of individualized vocational instruction:

> "1. Finding out what the student initially wants to do
> "2. Making available to the student as much relevant personal information, job-related information, and job market information as possible
> "3. Giving the student a chance to evaluate this information and choose a goal that best meets his/her needs."[1]

Harrington and Johnson discuss the meaning of individualized competency-based vocational instruction:

> Individualized instruction means adjusting or altering instruction as often as necessary and

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[1]C. Tracy Harrington, "Keys to Managing Competency-Based Education--Part One," Florida Vocational Journal 2 (January-February 1977): 28.

> in whatever ways are required to help individuals reach mastery of the competencies they need to acquire. The emphasis is on meeting individual learning needs, which are assumed to be different from person to person. The most common approaches for meeting these needs include varying the pace of instructional progress, or letting learners go through instruction at the rate that is best for them; varying instructional resources, using both materials and media; tailoring learning objectives to the particular needs of each individual; and basing evaluation of student-learning on preestablished standards of attainment rather than on a comparison with other students' attainment.[1]

Harrington and Johnson emphasized the importance of variable time in allowing students to progress at their own pace. Evaluation of a student's attainment is based upon a predetermined standard, not on a comparison with other students' performance. Instructional resources are varied to meet individual needs.

Fowler identified the six components and techniques of individualized competency-based vocational instruction:

"1. Personal goals articulated with the systems goals
"2. Performance objectives related to the student's needs and career goals
"3. Learning experiences correlated with the student's objectives and needs
"4. Learning strategies to provide feedback
"5. Organization and sequencing of objectives to motivate the learner and build on previous learning
"6. Criterion-referenced evaluation to determine when a student is ready to

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[1]Harrington and Johnson, Delivering Competency-Based Vocational Instruction--A Teacher's Guide, p. 3.

progress in his learning or has attained the desired competencies for job placement."[1]

Time is again stressed. The author maintained that the amount of time will vary for the learning process and experiences for each individual student. The author stated that mastery of objectives as evidenced by criterion-referenced evaluation is the basis for a student's completion of a program.

Lewis identified three characteristics in the area of curriculum and instruction: (1) the student makes decisions concerning objectives, activities, and evaluation; (2) a learning prescription is designed according to the student's test results on interests, ability, and aptitudes; and (3) a systems approach is utilized in planning curriculum and instruction.[2]

Nawaz and Tanveer added two important requirements for individualized instruction. They contend that students must be motivated to explore on their own. The authors indicated that grouping is used to provide flexibility in the curriculum, learning objectives, and learning styles.[3]

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[1]Marilyn Fowler, Individualizing Instruction for Competency-Based Education (Tallahassee: Florida Department of Education, 1976), pp. 7-8.

[2]Lewis, Administrator's Complete Guide.

[3]M. Nawaz and S. W. Tanveer, "Individualized Instruction: The Promise, Requisites, and Alternatives," Educational Technology 17 (February 1977).

Staffing and staff development. Nawaz and Tanveer discussed four conditions necessary for individualized instruction which pertain to staffing and staff development. The authors maintained time must be provided for teachers to preplan before instruction begins and for teachers to meet together during the school day to plan. Meaningful inservice education activities need to be provided for the instructional staff. Clerical and media staff should be available to provide special services.[1]

Lewis indicated that team teaching and differentiated staffing are important aspects to the individualized instruction system. Staff are involved in organized planning and close interaction.[2]

Facilities, equipment, and materials. Lewis stated that a variety of instructional materials is needed.[3] Goldberg indicated that: "Materials vary in rate, cognitive demand, and--whenever possible--interest."[3] Spalsburg stressed the importance of having an adequate amount of appropriate instructional materials

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[1]Ibid.

[2]Lewis, Administrator's Complete Guide.

[3]Ibid.

[4]Mark F. Goldberg, "Individualized Instruction: Myths and Characteristics," NASSP Bulletin 61 (February 1977): 67.

from commercial publishers.[1]

## Problems

Implementation of an individualized vocational education system may present some problems for the innovators. A number of potential problems are discussed in this section.

Policies and procedures. Edling cited three problems associated with policies and procedures: (1) lack of cooperation from state departments of education and accrediting associations; (2) difficulty in communicating with school board members; and (3) parents concern about school discipline.[2]

Curriculum and instruction. Spalsbury related a significant problem which faced personnel in an individualized vocational system in Colorado. He indicated that the time required to develop only one learning activity module averages forty to eighty hours each. Thus, it is difficult for staff to teach and develop materials at the same time.[3]

Scriven identified two other potential problems.

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[1]Jeff R. Spalsbury, "Individualized Instruction: In-Depth Tryout in Colorado," American Vocational Journal 50 (December 1975).

[2]Edling, Individualized Instruction.

[3]Spalsbury, "Individualized Instruction: In-Depth Tryout in Colorado."

He projected problems of time restraints on student learning and completion and poor student motivation and attendance.[1] Ferguson suggested that teachers must motivate students to answer questions since some of them may be shy. He emphasized that teachers must guard against spending most of their time with a few students.[2]

Lewis proposed a number of potential problems in the area of curriculum and instruction:

1. Construction of affective objectives by the teachers to develop values, attitudes, and appreciations by their students

2. Planning group learning activities while trying to individualize instruction

3. Lack of classroom organization and adequate instructional planning

4. Determination of entry points in the curriculum for students according to their individual needs

5. Student-teacher ratios which are too high to foster individualization of instruction

6. Monitoring a student's progress

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[1]Michael Scriven, "Problems and Prospects for Individualization," in Systems of Individualized Education, ed. Harriett Talmage (Berkeley: McCutchan Publishing Corporation, 1975).

[2]D. Hugh Ferguson, "Pitfalls and Frustrations of Individualization," NASSP Bulletin (April 1975).

7. Immaturity of younger or lower achieving students[1]

Edling also noted difficulty in monitoring the progress of students at different stages. He discovered that there was too much emphasis upon programmed learning. He also indicated that parents expressed concern about a possible decrease in curriculum content and student motivation.[2]

Hunsacker and Roy presented several drawbacks to successful implementation of an individualized instructional system. Using the common student-teacher ratio of 1:25, the authors contend that teachers cannot:

1. Extensively diagnose the individual student's ability, aptitude, achievement, interests, and learning style to prescribe an individualized program of learning

2. Develop specific performance objectives and correlated learning activities based upon the learning prescription

3. Place the student at the appropriate point in the curriculum and monitor his/her progress

4. Provide for the necessary feedback and

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[1]Lewis, Administrator's Complete Guide.

[2]Edling, Individualized Instruction.

evaluation to revise and assess instruction[1]

Staffing and staff development. Lewis identified four problems in the area of staffing and staff development. He projected problems of: motivation and involvement of teachers who are reluctant to change; unrealistic expectations of immediate results by teachers and principals; teacher resistance to nongrading and ungrading; teacher's lack of ability or interest in using a variety of learning activities and methods to achieve the same objective; and lack of support from other school personnel and school board members.[2]

Scriven anticipated problems of: inadequate time for faculty to develop and revise the curriculum and lack of sufficient staff to meet the ideal individualized student-teacher ratio of 1-10.[3]

Edling noted some staff concerns at the schools he studied: (1) Teachers felt unreasonable demands were being placed upon them; (2) Insufficient time was provided for training, support, and planning; (3) Internal and external communication for planning was lacking; (4) A higher rate in staff turnover developed because of

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[1]Johanna S. Hunsaker and Will Roy, "The Group-Centered Classroom: Alternative to It?" Educational Leadership 34 (February 1977).

[2]Lewis, Administrator's Complete Guide.

[3]Scriven, "Problems and Prospects for Individualization."

teacher's feelings of pressure and insecurity; and (5) Higher costs resulted as a result of hiring additional staff.[1]

Facilities, equipment, and materials. Edling also discovered some problems regarding materials and learning resources. A major problem was the lack of appropriate instructional materials from commercial sources. Other problems included: inadequate learning resources such as audiovisual aids and laboratory equipment; insufficient library space and resources; higher costs for learning materials; and the amount of time required to develop materials needed.[2]

Scriven discussed a problem relating to space He indicated that space may not be centralized, flexible, and well-stocked.[3] Hunsacker and Roy discussed the high costs of equipment, materials, and supplies. They suggested that it may not be feasible to provide the desired variety and quantity of these resources.[4]

Like Edling, Spalsbury noted the lack of commercially-prepared materials. He discussed the high

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[1]Edling, Individualized Instruction.

[2]Ibid.

[3]Scriven, "Problems and Prospects for Individualization."

[4]Hunsacker and Roy, "The Group-Centered Classroom: Alternative to It?"

costs of equipment and materials for vocational programs. The author projected that an amount of $15,000 to $20,000 must be invested for each vocational area and that it takes three to five years to effectively plan and implement an individualized vocational system.[1]

Recommendations

Recommendations have been made for the planning and implementation of an individualized vocational education system. Some of them are presented here.

Policies and procedures. Edling maintained that a plan for implementing the system should be presented to the school board for their support. He recommended that new time schedules be adopted to facilitate individualized instruction.[2]

Curriculum and instruction. Four guidelines were presented by Block to achieve success in individualizing instruction. First, he stressed that instructional strategies must be correlated to desired learning outcomes. Secondly, he emphasized the importance of feedback and correction procedures in planning instruction. The author indicated that individualized instruction does not have to be individual-based/student-paced, but

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[1]Spalsbury, "Individualized Instruction: In-Depth Tryout in Colorado."

[2]Edling, Individualized Instruction.

that he may be group-based/teacher-paced. To avoid frustration and disenchantment, Block suggested that the individualized system be implemented on a small scale in the beginning. Finally, he concluded that administrators should be sensitive to the constraints of the actual setting in the classroom when trying to implement an ideal individualized instructional system.[1]

Block made a couple of important points which need to be reiterated. Individualized instruction does not preclude the use of group learning activities and presentations by the teacher to a group of students. He proposed the initiation of an individualized system on a small scale. By doing this, it is easier to identify and solve problems with a smaller group of students and staff before implementing the plan on a large scale basis.

Karmos and Jacko made several recommendations in the area of curriculum and instruction. They suggested that: (1) only one or two major curriculum innovations be made in one year; (2) evidence be supplied that materials have been tested for clarity and validity; (3) program evaluation procedures have been developed before the program is implemented; and (4) two innovative teachers are placed at the same grade level to

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[1]James H. Block, "Individualized Instruction: A Mastery Learning Perspective," Educational Leadership 34 (February 1977).

provide support and articulation.[1]

Staffing and staff development. Pucel and Knaak indicated that two factors should be considered in planning to individualize a vocational program:

> "1. Fifty or more hours of learning in individualized instruction techniques and whatever inconvenience in cost or travel this might encounter.
> "2. Once trained, the development process will probably be the equivalent of an additional half-time job for that instructor for that year."[2]

Pucel and Knaak contend that an institution would need financial resources increased 25 to 50 percent to cover staff costs to implement the open-entry/open-exit system of individualized vocational instruction.[3]

Dunn indicated that the faculty must be "internally motivated" to make a change. A "charismatic practitioner can stimulate inquisitive and intelligent teachers to volunteer for experimentation and new concepts and practices." Dunn advised: "Send selected representatives (the most creative or intelligent) to visit schools where a good individualized program may be observed."[4]

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[1]Joseph S. Karmos and Carol M. Jacko, "Innovations: A Note of Caution," NASSP Bulletin 61 (October 1977).

[2]Pucel and Knaak, Individualizing Vocational and Technical Education, p. 194.

[3]Ibid.

[4]Dunn, "Individualized Instruction," p. 30.

The author projected the following clerical assistance for the faculty:

> Allow three hours per week of secretarial services for each group of 30 students whose programs are being individualized in one curriculum area only. Add two service hours for each additional teacher and another two for each additional curriculum area.[1]

Dunn explained that community parents, high school seniors, student teachers, and retired local residents may be used to limit costs of auxilliary personnel needed. In discussing the training and planning time needed to implement the individualized system, Dunn stated:

> An able, motivated group of teachers could begin to individualize instruction effectively in one curriculum area after 30 clock hours of concentrated study, provided that the training sessions included direct implementation of the individualized techniques in each participating teacher's classroom (with her pupils).[2]

The author stressed that: "Supervision, accompanied by demonstration of additional or varied techniques, should continue throughout the initial period (6-8 weeks), and planning time to work directly with the supervisor (or other teachers) should be provided."[3]

Edling recommended: "Staff training and planning time should be initiated well before an attempt is made

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[1]Ibid, pp. 30-31.

[2]Dunn, "Individualized Instruction," p. 32.

[3]Ibid.

to implement even pilot programs. The minimum time, under ideal conditions is one summer."[1] He recommended traveling to visit other schools and the use of team teaching."[2]

Facilities, equipment, and materials. Edling recommended the development of instructional materials or resource centers. He suggested that space be redesigned or new facilities constructed to provide larger flexible areas. He proposed a shift of some textbook funds into other instructional materials and media.[3]

Pucel and Knaak made the following suggestions concerning instructional materials and media:

"1. Specialized assistance for picture taking, development, descriptive artwork may be needed.
"2. The instructor's administrator may have to agree to double the instructional materials and audio-visual budget for that program for that year.
"3. For a price ranging from $5,000 to $50,000 a satisfactory set of individualized learning packages for that program may be on the market or available from another school."[4]

## Summary and Synthesis

The planning, organization, and implementation of open-entry/open-exit systems of individualized

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[1]Edling, Individualized Instruction, p. 102.

[2]Ibid. [3]Ibid.

[4]Pucel and Knaak, Individualizing Vocational and Technical Education, p. 194.

competency-based vocational instruction involves a variety of characteristics, problems, and recommendations. A summary and synthesis of some more important ones are provided here.

Characteristics

The review of literature and previous research suggested that the following characteristics should be found in an open-entry/open-exit system of individualized competency-based vocational instruction:

1. Students may enter the instructional program at any time if space is available

2. Students are graded on a pass/fail or mastery/non-mastery basis

3. Students are given aptitude and interest tests before they are admitted to programs

4. Students may leave and reenter a program at any time if space is available

5. Objectives are selected according to the student's career goals and an occupational task analysis

6. Students are involved in the selection and/or development of objectives

7. Students may progress through the instructional program at their own pace

8. Each student receives an individualized learning prescription based upon his/her needs

9. An adequate amount of appropriate instructional materials and laboratory equipment is available

Characteristics of the programs show the important blend of meeting individual needs and providing competent workers for business and industry.

Problems

A number of problems were identified in the review of the literature and previous research. Some of the most significant ones included:

1. High school credits and state licenses are based upon time spent, rather than competencies developed

2. High school students are restricted by compulsory school attendance laws

3. A great deal of recordkeeping is required in the open system

4. Organizing classroom activities with a high student-teacher ratio is difficult

5. Appropriate instructional materials, equipment, and facilities are not provided

Recommendations

A variety of recommendations were made for the development and implementation of open-entry/open-exit systems of individualized instruction for high school students. Some of these included:

1. FTE Funding formulaes and procedures, program review standards, and compulsory attendance regulations should be revised to facilitate the open system

2. Students should be allowed to enter, leave, and reenter at any time if space is available

3. Adequate amounts and variety of appropriate instructional materials, equipment, and supplies should be provided and V-TECS materials should be expanded to include learning activities and evaluation instruments

These recommendations emphasize the need for changes and improvements at the state and local levels.

# CHAPTER III

## DESIGN OF THE STUDY

A comprehensive analysis of the organization, development, and implementation of this research study is provided in this chapter. Included in this chapter are: a description of the populations surveyed; development of the survey instrument; validation of the instrument; reliability of the instrument; administration of the instrument; and procedures for analysis of data.

### Populations Surveyed

The major purpose of this study was to determine the perceptions of school personnel regarding the characteristics, problems, and recommendations for developing and improving open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida. The personnel studied had been involved in the planning, organization, and implementation of such systems in three school districts in Florida (see Appendix F for complete demographic data).

Data were collected through observations and interviews by this researcher at the school sites surveyed. The findings were combined with the data of the survey and the review of literature and previous research to form

conclusions and recommendations presented in chapter five.

The survey instrument was administered to 118 of the 119 school personnel in Marion, Pinellas, and St. Johns counties who have been involved with the open-entry/open-exit systems of individualized competency-based vocational instruction with secondary students. Personnel surveyed included: building administrators, department and school supervisors, classroom instructors, counselors, teacher's aides, and clerical aides. These personnel were located at Ocala Community High School, St. Petersburg Vocational-Technical Institute, and St. Augustine Technical Center. Because of the size of the populations and their central locations, it was not necessary to sample any of the three populations. Thus, all three of the populations were surveyed in their entirety by the researcher on site with the exception of one instructor who was not available.

The number of respondents from each of the surveyed schools included: twenty from Ocala Community High School in Marion County; thirty-eight from St. Petersburg Vocational/Technical Institute in Pinellas County; and sixty from the St. Augustine Technical Center in St. Johns County.

## Development of the Instrument

The sections and individual response items of the survey instrument were developed utilizing a variety of sources including: interviews with the local personnel to

be surveyed; observations of the open-entry/open-exit programs which offer individualized competency-based vocational instruction with high school students in the three schools previously identified; reviews of relevant literature and previous research; Florida School Laws and State Board of Education Administrative Rules; interviews with personnel in the Vocational Education Division of the Florida Department of Education; and discussions with faculty members in the Department of Educational Leadership at Florida State University.

Initially, this researcher visited each of the school sites to interview a total of thirty-nine personnel representing each of the six positions and nine program areas surveyed. This investigator observed the students and instructional personnel of twenty-four different programs at the three sites to collect data for the design of the instrument.

Based upon the input received from all of the sources identified above, a draft of the survey instrument was developed. This draft was reviewed by selected local school personnel, faculty members in the Department of Educational Leadership, and staff in the Bureau of Research, Dissemination, and Evaluation of the Vocational Division in the Florida Department of Education. This revised copy was administered to a selected group of thirty personnel at the three schools before the complete administration of

the final instrument was conducted with all personnel.

Classification of Sections

The survey instrument was composed of four major sections: (1) characteristics of the open-entry/open-exit system of individualized competency-based vocational instruction for high school students; (2) problems involved with the planning, organization, and implementation of the systems; (3) recommendations for the design, coordination, and operation of both current and future systems in Florida; and (4) demographic data regarding the vocational programs, personnel, and schools surveyed.

The items in the first section were designed to obtain the respondents' perceptions of the extent to which the stated characteristics exist in their particular programs. The second section was constructed to determine the respondents' views of problems which they had experienced or were experiencing as a result of the open-entry/open-exit system of individualized competency-based vocational instruction with secondary students. The items in the third section were developed to elicit recommendations from the respondents for the improvement of their own program as well as the development of other similar programs in Florida.

The last section of the instrument on demographic data was created to obtain such information as the

respondent's school district, position, length of time in position, educational background, and program area.

Space was provided at the end of each section for the respondents to identify any additional characteristics, problems, and recommendations relative to the systems. An opportunity was also provided to rate each of the additions using the given scales. Additional space was provided for respondents to make any other comments deemed appropriate.

## Construction and Arrangement of Survey Items

The development of the individual statements for the survey instrument is an important task since the respondents may be influenced by the structure or wording of the items. After a review of various formats used in other similar types of research studies, it was determined that a closed form or structured survey instrument consisting of a prepared list of definite items and a specified selection of possible responses would be used. The opportunity was provided for respondents to give open-ended items and comments. This format facilitates the understanding, administration, completion, tabulation, and analysis of the data.[1]

A variety of sources was used to determine the content and scope of the survey instrument. To assist in

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[1]Deobold B. Van Dalen, Understanding Educational Research (New York: McGraw-Hill Book Company, 1973), p. 325.

the wording of the survey items, The Art of Asking Questions[1] by Stanley Payne was used. Payne provides a list of 1,000 words which are frequently used in surveys noting problem words and offering suggestions for overcoming them. Care was taken to select simple, uniform, and neutral words and to develop brief but clear items. An effort was made to avoid statements which were ambiguous, leading, and emotional or had multiple meanings. Each item was constructed using a similar sentence structure.

Although side headings were not used to designate areas in each of the major sections, items in each of the first three major sections were arranged in the following order to assist the respondent and facilitate the tabulation and analysis of the data: (1) policies and procedures; (2) curriculum and instruction; (3) staffing and staff development; (4) facilities, equipment, and materials. Side headings were specifically avoided in order to preclude the possibility of the respondents viewing related items as the same and giving patterned responses.

An effort was made to limit the survey instrument to as few pages as possible to alleviate potential fatigue, resentment, and apprehension of the respondents to a lengthy survey. In considering these factors and the respondent's attention span, the instrument was designed so that it

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[1]Stanley Payne, The Art of Asking Questions (Princeton: Princeton University Press, 1951), pp. 4-9.

could be completed by the respondent within thirty minutes.

Rating Scales

A five-point scale was used in the first section of the survey instrument concerning the characteristics of the open-entry/open-exit systems of individualized competency-based vocational instruction for high school students. This scale was used to determine the respondents' perceptions of the extent to which each of the characteristics exists in their particular program and system. The scale used was from (0) does not exist, (1) to a little extent, (2) to some extent, (3) to a great extent, and (4) very extensively.

A five-point scale was also used in the second section of the questionnaire concerning problems encountered with the open-entry/open-exit system of individualized vocational instruction with high school students in the respondent's school. This scale included: (0) not a problem, (1) slight problem, (2) moderate problem, (3) significant problem, and (4) critical problem.

Recommendations for improvement of the respondent's program or development of a similar open-entry/open-exit system were solicited in the third section by using a four-point scale of (1) strongly disagree, (2) moderately disagree, (3) moderately agree, and (4) strongly agree.

Since the survey instrument was a comprehensive one covering all programs and the entire system at each of the schools, respondents were instructed to write NA (does not apply) for those items which did not apply to them and/or for which they had little or no knowledge.

The final section on demographic data was composed of questions with varying numbers of responses depending upon the type of information needed in analyzing the data.

Each item within each of the four major sections was numbered consecutively and identified as sections A, B, C, and D to facilitate computer tabulation. Columns were numbered corresponding to the rating scale applicable and were placed to the right of the items for respondents to check according to their views.

Coding and Cover Letter

To distinguish the major sections within the survey instrument, each section was coded as different colors including blue, pink, green, and gold. Each of the survey instruments was numbered to assist in the administration of the questionnaire and the tabulation of data.

A yellow cover letter from this investigator was attached to the front of the survey instrument to explain the purposes of the survey, instructions for completing the survey, and the benefit that it would serve the respondent and others. A "you" attitude was reflected in the letter

to personalize the survey.

Respondents were advised in the letter as well as in person that no signature was requested since the study was interested in summaries and comparisons of responses by schools, positions, and program areas.

In addition to the cover letter from this investigator, a letter of endorsement for the study was included from Joe D. Mills, Director of the Vocational Division of the Florida Department of Education, hereafter referred to as DOE. (Copies of the cover letter, survey instrument, and endorsement letter are provided in Appendix A.)

## Validation of the Instrument

The initial draft copy of the survey instrument was submitted to the Bureau Chief of the Bureau of Vocational Research, Dissemination, and Evaluation and the Project Officer in the Research and Development Section of the Vocational Division of the Florida Department of Education for examination of its general design, format, and content. After being revised, the questionnaire was presented to the chairman and selected faculty members of the Department of Educational Leadership at Florida State University. Following the faculty review, the instrument was distributed to a representative group of local personnel who would be surveyed to obtain their input and recommendations for additions, deletions, and modifications.

Changes were made in the instrument and it was resubmitted to the DOE personnal in the Vocational Division, to faculty members at Florida State University, and to personnel in the school districts for final review. After this review was completed, the instrument was field-tested by the researcher at the three school sites with thirty selected school personnel involved with the open-entry/open-exit systems of individualized competency-based vocational instruction for high school students. The group of participants represented all the school districts, positions, and instructional program areas included in the final administration of the survey instrument.

All survey items added by individual participants were submitted to the entire field-test group for their responses. All items in the expanded field-test were considered appropriate by the respondents. Thus, the same survey items were included on both the field-test and final survey instruments.

## Reliability of the Instrument

The thirty personnel involved in the field-test were each assigned a number and asked to remember their number for the final administration of the survey instrument which would be conducted two weeks later. After the administration of the final survey to the 118 of the 119

total school personnel, the answers provided by the thirty field-test participants on the final survey were compared to those they furnished on the field-test.

In conducting a hand analysis of each participant's responses on the two instruments, only two items showed variations of more than one response interval by a respondent. In comparing the responses between the field-test and the final survey of the thirty participants, the greatest number of variations found for any one respondent was fourteen out of the 126 items in the first three section of the survey. Only one variation was found in analyzing responses on demographic data in the fourth section.

A comparison of the responses between the field-test and final survey instruments revealed that the greatest number of variations on any one survey item was five out of the possible thirty. The total number of items on which there were any variations was 109 out of the 140 items. Only twelve of those 105 items showed variations in responses by more than three of the thirty respondents.

The results of the hand analysis were verified by the statistical analysis tabulated by the computer. The Pearson Product-Moment Correlation Coefficient, hereafter referred to as the $\underline{r}$ value, was calculated for each of the 140 survey items to determine the correlation of the field-test and final survey responses. An $\underline{r}$ value of

.95 was established as an appropriate measure.[1] A review of Table 31 in Appendix G shows that twenty-four of the 140 r values fell below the .95 value established.

A common value of .01 was established as the appropriate level of significance.[2] Although r values ranged from .8057 to 1.000, the level of significance for all survey items was .001. Thus, the survey instrument proved to be highly reliable. (A more detailed analysis of the correlations for each item on the two instruments may be found in Appendix G.)

## Administration of the Instrument

The survey instrument was administered in person to 118 of the 119 school personnel involved with the open-entry/open-exit system of individualized competency-based vocational instruction with high school students in the Florida counties of Marion, Pinellas, and St. Johns. The surveys were distributed to twenty school personnel at Ocala Community High School in Marion County; thirty-eight school personnel at St. Petersburg Vocational-Technical Institute in Pinellas County; and sixty school personnel at the St. Augustine Technical Center in St. Johns County.

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[1]James Kenneth Brewer, Professor, Educational Research Development, and Foundations, Florida State University, class lecture, 20 July 1976.

[2]Sidney Siegel, Non-Parametric Statistics (New York: McGraw-Hill Book Company, Inc., 1956), p. 8.

The final administration of the survey was conducted two weeks after the field-test was administered. The survey was administered to building administrators, department and building supervisors, instructors, counselors, teacher's aides, and clerical aides. Nine instructional program areas were included in the study: Agriculture, Business/Office Education, Distributive Education, Diversified Education, Health, Home Economics, Individual Manpower Training Systems (IMTS), Industrial Education, and Technical Education.

The instrument was administered to the personnel individually and in small groups of three to five people by this researcher. The respondents were advised that there were no right or wrong answers to the items in the survey instrument, but that it was their individual perceptions of the statements that were of utmost importance. After the respondents were given instruments, they were requested to respond to the instrument independently in an area as free from distractions as possible. The researcher was stationed in a central location to answer any questions that respondents might have. As indicated earlier, each instrument also included a cover letter with explanations of the purposes of the study and general instructions. Each of the major sections contained specific instructions for completion of that section of the survey.

The investigator emphasized to the respondents that no signature was requested on the instrument as the project findings would focus on summaries and comparisons by schools, positions, and program areas. At the end of the first day at each of the school sites, a notice from the school administrator was placed in each participant's mailbox reminding them to promptly return the completed instruments to the main office.

## Procedures for Analyzing the Data

After the data were collected, the responses for each instrument were keypunched on IBM cards to facilitate computer analysis. A computer program was developed to obtain the following statistical treatments:

1. The mean, median, and mode of the responses were calculated by the total responses, school district, position, and program area.

2. The standard deviation of the responses was computed by total responses, school districts, position, and program area.

3. The frequencies and percentages of the responses were calculated by total responses, school districts, positions, and program areas.

The data from the computer printouts were analyzed to determine major similarities and differences in perceptions among the respondents by total responses, school districts, positions, and program areas. Major

discrepancies in perceptions among the respondents were determined by identifying those statements in which the computed mean ratings varied by one or more response intervals.

Major differences in perceptions were also determined when less than 70 percent of the responses fell within two response options for individual statements in the first two sections of the instrument containing five response intervals. Major differences in perceptions were determined when less than 80 percent of the responses fell within two class intervals for individual items in the third section of the instrument composed of four response options.

Characteristics which exist most extensively and recommendations which had the strongest agreement were identified within a group or by the total respondents when an item produced a mean greater than 3.5. Similarities in responses on characteristics, problems, and recommendations were determined when the means varied by less than one-half of a class interval.

Open-ended responses given at the end of each section were compiled and synthesized maintaining their substance and perceptions. Additional comments were assimilated and edited retaining their meanings and options. These responses may be reviewed in Appendix E.

## Summary

This chapter has provided a detailed, comprehensive description of the procedures utilized in the organization, development, and implementation of this study. The next chapter presents and analyzes the data which was collected and tabulated in the study.

# CHAPTER IV

## ANALYSIS OF THE DATA

This chapter presents and analyzes the data collected with the survey instrument including the procedures used in tabulating, summarizing, and interpreting the data. The findings of this research study are presented under the following major center headings: (1) summary of the survey returns; (2) perceptions of the characteristics; (3) perceptions of the problems; (4) analysis of the recommendations; (5) added items and comments; and (6) analysis of demographic data.

### Summary of Survey Returns

School administrators at Ocala Community High School, St. Petersburg Vocational-Technical Institute, and the St. Augustine Technical Center identified a total of 119 personnel who were involved with open-entry/open-exit systems of individualized competency-based vocational instruction with high school students. Of the 119 survey instruments distributed, 118 or 99.2 percent, were returned. One of the teachers in Pinellas County was not available to complete the survey.

As indicated in Table 1, the largest number of respondents by position were instructors, representing eighty-three of the 118 participants or 70 percent of the total group. Teacher's Aides accounted for eleven of those surveyed or 9 percent of the respondents.

TABLE 1

NUMBER AND PERCENTAGE OF RESPONDENTS BY POSITION, TOTAL GROUP, AND SCHOOL DISTRICT

| Position | Total | | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Administrator | 7 | 6 | 2 | 10 | 3 | 8 | 2 | 3 |
| Supervisor | 7 | 6 | 0 | 0 | 1 | 3 | 6 | 10 |
| Instructor | 83 | 70 | 14 | 70 | 32 | 84 | 37 | 62 |
| Counselor | 7 | 6 | 3 | 15 | 2 | 5 | 2 | 3 |
| Teacher's Aide | 11 | 9 | 1 | 5 | 0 | 0 | 10 | 17 |
| Clerical Aide | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 5 |
| Total Respondents | 118 | 100 | 20 | 100 | 38 | 100 | 60 | 100 |

# = Number
% = Percentage

Industrial instructional personnel totaling thirty-five represented the largest program area with 30 percent of the total. The IMTS group comprised

thirty-two of the respondents or 27 percent of the total group. Table 2 reflects the distribution of survey respondents by program area. Some respondents did not check a program area because they have school-wide responsibilities.

TABLE 2

NUMBER AND PERCENTAGE OF RESPONDENTS BY PROGRAM, TOTAL GROUP, AND SCHOOL DISTRICT

| Program | Total | | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| Agriculture | 4 | 3.4 | 1 | 5.0 | 0 | 0.0 | 3 | 5.0 |
| Business/Office | 12 | 10.2 | 2 | 10.0 | 5 | 13.2 | 5 | 8.3 |
| Distributive | 3 | 2.6 | 1 | 5.0 | 2 | 5.3 | 0 | 0.0 |
| Diversified | 4 | 3.4 | 3 | 15.0 | 0 | 0.0 | 1 | 1.7 |
| Health | 1 | .8 | 0 | 0.0 | 0 | 0.0 | 1 | 1.7 |
| Home Economics | 5 | 4.2 | 1 | 5.0 | 4 | 10.5 | 0 | 0.0 |
| IMTS | 32 | 27.1 | 7 | 35.0 | 10 | 26.3 | 15 | 25.0 |
| Industrial | 36 | 30.5 | 2 | 10.0 | 8 | 21.0 | 26 | 43.3 |
| Technical | 9 | 7.6 | 1 | 5.0 | 4 | 10.5 | 4 | 6.7 |
| Blank | 12 | 10.2 | 2 | 10.0 | 5 | 13.2 | 5 | 8.3 |
| Totals | 118 | 100.0 | 20 | 100.0 | 38 | 100.0 | 60 | 100.0 |

# = Number
% = Percentage

## Perceptions of Characteristics

Each respondent was asked to indicate the extent to which each of the fifty-three characteristics listed in the instrument exists in his/her program. Although headings were not used in the instrument, survey statements were grouped into these four categories: (1) policies and procedures--fourteen items; (2) curriculum and instruction--twenty-eight items; (3) staffing and staff development--six items; and (4) facilities, equipment, and materials--five items.

## Responses by Total Group

In analyzing the perceptions of the characteristics by the total group of respondents at the three school sites, the participants generally describe their program as possessing the characteristics very extensively or to a great extent. Only five of the fifty-three characteristics reflected means of less than two according to the total group of respondents.

Table 3 provides an analysis of those characteristics which exist least extensively as perceived by the total group of respondents. These were identified by selecting those which had means less than two. Responses on two of these items produced modes of zero indicating that those characteristics do not exist in their programs.

TABLE 3

CHARACTERISTICS WHICH EXIST LEAST EXTENSIVELY AS PERCEIVED BY THE TOTAL RESPONDENTS*

| Item # | Characteristic | Mean[a] | Median | Mode | SD |
|---|---|---|---|---|---|
| 8 | Students are admitted on the basis of established selective criteria | 1.94 | 2.00 | 2.00 | 1.38 |
| 19 | Students are involved in the selection and/or development of objectives | 1.49 | 1.41 | 1.00 | 1.12 |
| 28 | Students are involved in co-curricular student organizations, such as FFA and DECA | 1.18 | .95 | 0.00 | 1.23 |
| 43 | Student and/or volunteer tutors are used to help the students | 1.97 | 1.90 | 2.00 | 1.28 |
| 44 | Teacher's aides are employed to assist with instruction | 1.87 | 1.87 | 0.00 | 1.49 |

*Mean is less than 2.0

# = Number
SD = Standard Deviation

[a]Scale: 0 Does not exist
1 To a little extent
2 To some extent
3 To a great extent
4 Very extensively

These two characteristics are: number 28, "Students are involved in co-curricular student organizations, such as FFA and DECA"; and number 44, "Teacher's aides are employed to assist with instruction." Number 19, "Students are involved with the selection and/or development of objectives," was the only statement whose mode was one

reflecting that this characteristic exists to a little extent in the program.

Table 4 provides an analysis of those characteristics which exist most extensively as perceived by the total respondents where the mean is greater than 3.5.

TABLE 4

CHARACTERISTICS WHICH EXIST MOST EXTENSIVELY AS PERCEIVED BY THE TOTAL RESPONDENTS*

| Item # | Characteristic | Mean[a] | Median | Mode | SD |
|---|---|---|---|---|---|
| 1 | Students may enter the program at any time if space is available | 3.72 | 3.88 | 4.00 | .74 |
| 4 | Vocational programs are scheduled at regular times each day of the week | 3.82 | 3.93 | 4.00 | .51 |
| 12 | High school students receive regular credits toward a regular high school diploma | 3.67 | 3.92 | 4.00 | .94 |
| 23 | Students may progress through the instructional program at their own pace | 3.52 | 3.75 | 4.00 | .83 |
| 29 | Students are involved in "hands-on" lab experiences with a variety of equipment | 3.60 | 3.84 | 4.00 | .86 |

*Mean is greater than 3.5

# = Number
SD = Standard Deviation

[a]Scale: 0 Does not exist
1 To a little extent
2 To some extent
3 To a great extent
4 Very extensively

In the review of the literature and previous research, certain characteristics were identified as being essential to the effectiveness and efficiency of an open-entry/open-exit system of individualized vocational instruction. Two of these have been identified by the total respondents as existing extensively in their program: number 1, "Students may enter the instructional program at any time if space is available," and number 23, "Students may progress through the program at their own pace." Responses on these two items confirm the fact that the programs studied operate on an open-entry/open-exit basis.

Tabulation showed that thirty of the fifty-three items, representing 57 percent of the statements, reflected a mode of 4.0 (exists very extensively). Another twelve survey items depicted a mode of 3.0 (exists to a great extent). Thus, forty-two of the fifty-three items reflect modes of 3.0 or 4.0 indicating that the total group of respondents perceived 79 percent of the characteristics as existing very extensively or to a great extent. A complete analysis of the total responses by mean, median, mode, and standard deviation may be found in Appendix B.

Responses by School Districts

In analyzing responses on characteristics by school districts, several characteristics are depicted as existing most extensively by a particular school district which were

not reflected by the total group. Using a mean of greater than 3.5 as the criteria, St. Johns' respondents only identified one other characteristic as existing most extensively: number 5, "IMTS instruction is scheduled at regular times each day of the week." This group did not indicate that number 23 concerning self-pacing existed very extensively as did the other two districts and the total group.

The Pinellas participants also reflected that number 5 exists extensively. In addition, the group indicated that number 7 regarding progress sheets and number 25 concerning learning activity packages exist extensively.

Six characteristics were identified as existing extensively by the Marion respondents which were not reflected by the total group and the other two districts. These include numbers 13, 22, 26, 31, 47, and 48. Walejko indicated that two of these are essential to the effective and efficient operation of an open-entry/open-exit system of individualized competency-based vocational instruction: number 13, "Students may leave and reenter the program at any time if space is available," and number 31, "Students may progress through learning experiences individually at their own pace."[1]

Using means of less than 2.0 as a basis, some

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[1]Walejko, "Managing CBVE in the Classroom."

differences in responses among the school districts may be found in comparison with the total group. Greater variation was again depicted by Marion participants. This group identified five characteristics as existing less extensively which were not reflected by the total group and the other two districts. These include numbers 15, 33, 34, 36, and 39. Number 15, "Students have selected a specific career goal before entering a program," is an important basis for students' enrollment in a vocational program according to Harrington.[1]

The Pinellas respondents only identified one additional characteristic as existing least extensively: number 27, "Students use vocational learning systems such as Singer." The St. Johns personnel also only indicated one other characteristic as existing least extensively: number 10: "Students are given aptitude and interest tests before they are admitted to the program."

The graph of Figure 1 illustrates the major differences in perceptions of the program characteristics among the respondents by school district. Items were selected where the mean among the group responses varied by more than one interval of the scale or 1.0. The graph shows a much closer agreement on items between Pinellas and St. Johns County as compared to Marion County.

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[1]Harrington, "Keys to Managing Competency-Based Education."

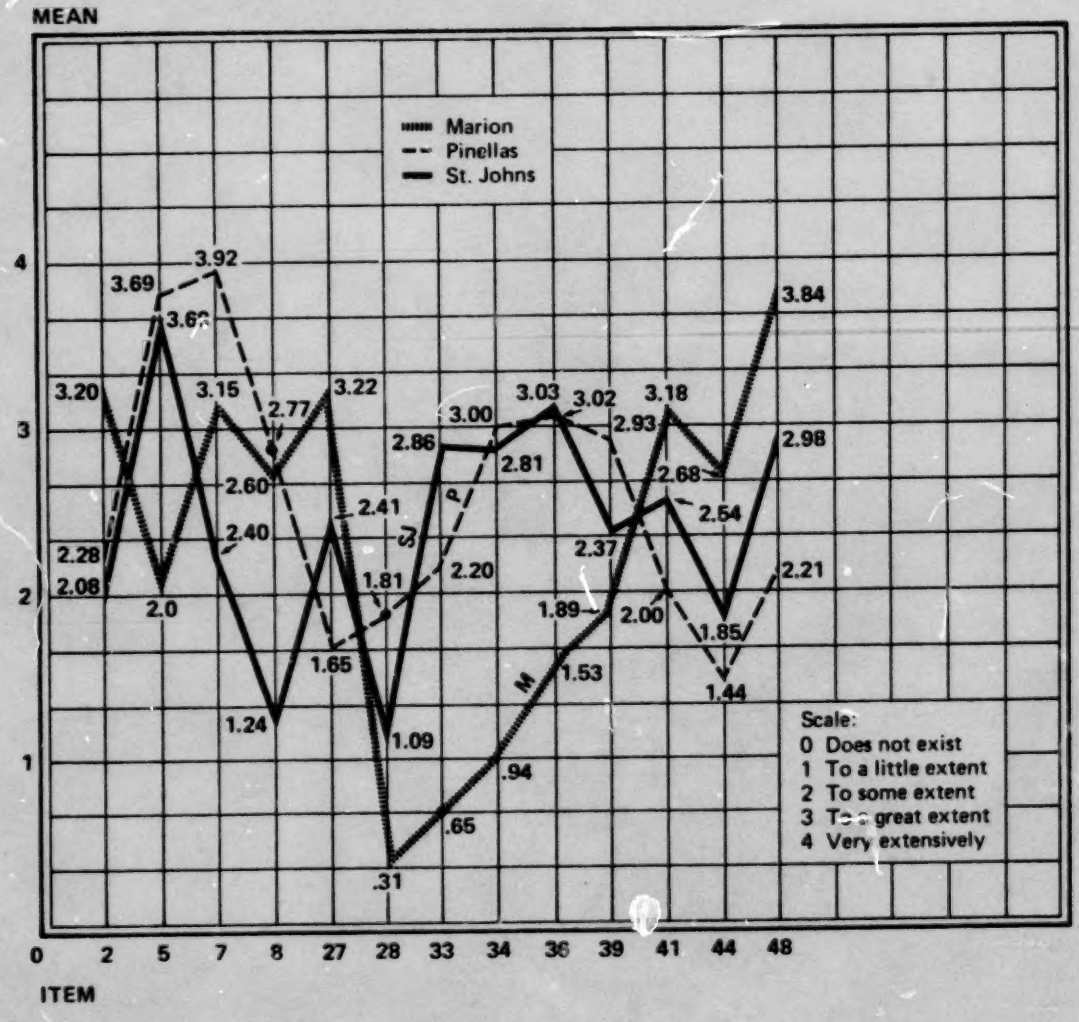


Figure 1. Major differences in perceptions of program characteristics among respondents by school districts where the mean of the group responses varied by more than one class interval or 1.0.

Item number 34, "Students are placed in a job related to their training when they graduate," for example, shows the Pinellas responses reflect a mean of 3.0 and the St. Johns answers depict a mean of 2.81. However, the Marion participants indicate a mean of .94 for that item.

Nine of the thirteen items selected illustrate a much greater variation of responses by the Marion County personnel than those of the Pinellas and St. Johns County staff. This may be attributed to the fact that fifteen of the twenty personnel involved in the survey at the Ocala Community High School are part-time staff, employed for twenty hours or less per week.

A review of the complete analysis on characteristics in Table 11, Appendix B, will reveal that the three school districts demonstrated major agreement on twenty-three of the fifty-three statements. The means among the schools on these items varied by less .50 or one-half of a scale interval. In making a comparison within categories of items, Table 12 shows that fifteen of the twenty-seven statements were found in the area of curriculum and instruction. A strong agreement was found on all of the five items in the category of facilities, equipment, and materials.

Table 13 in Appendix B provides an analysis of the responses by school districts where 70 percent or more of the answers by the respondents within a school district

fall into two consecutive response options, such as three and four. The percents and option numbers selected by the total group using the 70 percent criteria is provided for comparison.

Responses by Positions

Six different positions were surveyed in the study: administrators, supervisors, instructors, counselors, teacher's aides, and clerical aides. Only those aides who work closely with an instructional program were included.

In analyzing the responses on characteristics in Table 14 of Appendix B, great variation may be found among the positions. Only the teachers' response coincide closely with those of the total group. This would be expected since 70 percent of the respondents were teachers.

A review of the characteristics which exist most extensively where the mean is greater than 3.5 according to positions shows that administrators, counselors, and clerical aides perceive more characteristics as existing very extensively than the other positions and the total group. Counselors viewed nine more than the total group. Administrators and clerical aides each perceived eight more as existing very extensively than the total group.

Administrators and counselors reflected that number 13, "Students may leave and reenter the program at any time if space is available," exists most extensively,

but the total group and other personnel did not. Administrators indicated that number 22, "Each student's performance is measured on each of the performance objectives," exists very extensively, but the other respondents did not. The administrators, counselors, teacher's aides, and clerical aides all revealed that number 31 concerning self-pacing exists most extensively, but the teachers and instructional supervisors did not. Only the counselors reflected that number 35, "Each student receives an individualized learning prescription based upon his/her needs," exists very extensively. Table 15 in Appendix B shows those characteristics which were identified as existing most extensively by respondents according to their positions.

An analysis of the characteristics which exist least extensively as perceived by the respondents according to their positions where the mean is less than 2.0 shows distinct differences in perceptions. Although the total group identified five characteristics as existing less extensively, the administrators did not specify this for any of the characteristics. The responses of the teachers and instructional supervisors coincided closely with those of the total group on four of the five items previously identified.

Counselors indicated four additional characteristics which exist less extensively while teacher's aides and clerical aides identified three additional ones. Counselors' responses only produced a mean of 1.29 for number 24, "Students may choose among different learning experiences for the same objective." Both counselors and teacher's aides reflected low means for number 39, "Placement and follow-up studies of graduates are used to make curriculum decisions."

Table 5 shows the greatest agreement by means in perceptions of program characteristics of respondent groups by position where the means among the groups varied by less than .50 or one half of a class interval on any one item.

TABLE 5

GREATEST AGREEMENT BY MEANS IN PERCEPTIONS OF PROGRAM CHARACTERISTICS OF RESPONDENT GROUPS BY POSITION*

| Characteristic | Total | Administrator | Supervisor | Teacher | Counselor | Teacher Aide | Clerical Aid |
|---|---|---|---|---|---|---|---|
| # 1 | 3.72 | 3.71 | 3.71 | 3.67 | 3.86 | 3.91 | 4.00 |
| 12 | 3.67 | 4.00 | 3.86 | 3.57 | 3.67 | 4.00 | 4.00 |
| 13 | 3.29 | 3.57 | 3.29 | 3.21 | 3.71 | 3.46 | 3.33 |
| 15 | 2.21 | 2.43 | 2.14 | 2.22 | 2.29 | 2.09 | 2.00 |
| 22 | 3.31 | 3.57 | 3.29 | 3.31 | 3.14 | 3.27 | 3.33 |
| 50 | 2.78 | 3.14 | 3.00 | 2.67 | 3.17 | 2.91 | 3.00 |

*Difference in mean among the respondent groups varied by less than .50 or one-half of a class interval on an item.

A sharp contrast is evident between the analysis of characteristics by school districts and by positions. The districts depicted major agreement on twenty-three of the items whereas similar agreement was reached on only six of the characteristics by respondents according to their positions.

Major differences in perceptions of characteristics of respondents by position were noted on twenty-five of the items where the means varied by more than 1.0 among the groups on any one item. This represents a substantial number more than the thirteen distinguished by school districts.

Responses by Program Areas

A review of responses by program areas on characteristics revealed that the nine groups only agreed on one characteristic as existing most extensively where the means were greater than 3.5. The Distributive Education personnel indicated that twenty-six of the characteristics exist most extensively, and the Home Economics participants revealed that fourteen of the characteristics exist most extensively.

In determining which characteristics exist least extensively as perceived by the program areas where the means are less than 2.0, no item reflected unanimous agreement. All program areas but Distributive Education revealed means of less than 2.0 on number 19, "Students are involved in the selection and/or development of

the total respondents, the participants generally indicate that they have not experienced any critical or significant problems. Table 17 in Appendix C reveals that forty-seven of the fifty items showed means of less than 2.0.

Three problems were identified as being important by the respondents where the modes were 4.0 and the means were greater than 2.0. Table 6 provides the statistics concerning these problems with FTE Funding, record-keeping, and high school personnel. Although the mean was less than 2.0, one other item showed a mode of 3.0: number 37, "Adequate time and funds are not provided for inservice education/staff development."

TABLE 6

PROBLEMS PERCEIVED AS MOST IMPORTANT BY THE TOTAL RESPONDENTS*

| Item # | Problem | Mean[a] | Median | Mode | SD |
|---|---|---|---|---|---|
| 16 | FTE Funding is not flexible to provide funds for the open-entry/exit system | 2.28 | 2.65 | 4.00 | 1.52 |
| 17 | The open-entry/open-exit system requires a great deal of recordkeeping | 2.56 | 2.96 | 4.00 | 1.48 |
| 42 | High school personnel do not support the open-entry/open-exit vocational system | 2.03 | 2.23 | 4.00 | 1.62 |

*Mean is greater than 2.0 and the mode is 4.0

# = Number
SD = Standard Deviation

[a]Scale: 0 Not a problem
1 Slight problem
2 Moderate problem
3 Significant problem
4 Critical problem

The total group of respondents reflected ten problems which have caused the least difficulty where the means are less than 1.0 and the modes are 0.0. Two of these shown in Table 7 warrant special attention.

TABLE 7

PROBLEMS PERCEIVED AS LEAST CRITICAL BY THE TOTAL RESPONDENTS*

| Item # | Problem | Mean | Mode |
|---|---|---|---|
| 2 | Selection criteria for admitting students is too restrictive | .34 | 0 |
| 4 | High school students are prevented from entering the program when ready | .97 | 0 |
| 5 | High school students are prevented from leaving the program when ready | .80 | 0 |
| 8 | High school students are restricted by state compulsory attendance laws | .98 | 0 |
| 10 | Difficulty in scheduling students, faculty, and courses has existed | .85 | 0 |
| 11 | Transportation for high school students is not provided to the center | .59 | 0 |
| 12 | Transportation between high school and center does not meet needs | .65 | 0 |
| 24 | Selection/development of objectives is difficult for the teacher | .95 | 0 |
| 33 | Students are not placed on job at completion of their instruction | .96 | 0 |
| 46 | Quantity of appropriate materials is not provided by school system | .91 | 0 |

*Means are less than 1.0 and modes are 0.0

Numbers 4 and 5 pertain to the student's prevention from entering and leaving the program when he/she is ready. Visits by this researcher to the school sites revealed that although the three schools surveyed were prepared to have students enter, leave, and reenter at any time space is available, the high school students were prevented from doing this by the high school administration. However, the responses on the survey indicate that the open-entry/open-exit school personnel overall do not view this as an important problem.

Table 19 in Appendix C indicates that 70 percent or more of the total group of respondents perceive thirteen of the problems listed as not being a problem or being a slight problem. Four of these are not reflected in Table 7 based on means and modes: numbers 7, 34, 41, and 50. No other strong agreement on problems was found.

Responses by School Districts

In comparing responses to problems among the three school districts, distinct differences in perceptions of problems is evident. The Marion respondents identified no important problems where the mean was greater than 2.0 and the mode was 3.0 or 4.0. The Pinellas participants indicated two problems which were not cited by the total group: number 9, "Attendance policies for the students are too liberal for effective learning," and number 44, "V-TECS or IDECC materials are not effective or complete for use."

The St. Johns personnel also designated number 44 as a problem and included nine other problems not identified by the total group. These are depicted in Table 8. As mentioned earlier, the St. Johns respondents represented the greatest number of participants, positions, and program areas. This may have some bearing on the results.

In determining those problems which have presented the least difficulty according to the school districts, the Marion group's responses produced a mean of less than 1.0 for thirty-six of the fifty problems listed. As discussed previously, ten problems were viewed in this low range by the total group. In contrast to the Marion respondents, the Pinellas participants only placed twelve problems in the no to slight range, and the St. Johns personnel reflected only six problems in the low mean range of less than 1.0.

Figure 2 shows the seventeen items on which there were major differences in perceptions of problems where the means among the school districts varied by more than 1.0 or one class interval. As in the analysis of characteristics, the Marion responses show the greatest variation. The Pinellas and St. Johns respondents showed a much closer correlation.

Responses by Positions

In analyzing the responses by the six positions

TABLE 8

PROBLEMS PERCEIVED AS MOST IMPORTANT BY THE ST. JOHNS' RESPONDENTS

| Item # | Problem | Mean[a] | Mode |
|---|---|---|---|
| 16** | FTE Funding is not flexible to provide the funds for the open-entry/open-exit system | 2.71 | 4.00 |
| 17** | The open-entry/open-exit system requires a great deal of recordkeeping | 3.09 | 4.00 |
| 18 | High school students may have to graduate before they have needed competencies | 2.30 | 4.00 |
| 26 | Organizing individual use of equipment and learning aids is difficult | 2.25 | 4.00 |
| 28 | Evaluation of student performance is difficult | 2.20 | 4.00 |
| 29 | Student-teacher ratio is too high to enable effective individualized instruction | 2.09 | 4.00 |
| 36 | Adequate time and funds were not provided to train staff in starting the open system | 2.36 | 4.00 |
| 37 | Adequate time and funds are not provided for inservice education/staff development | 2.15 | 3.00 |
| 38 | Sufficient clerical/support staff have not been provided for effective instruction | 2.12 | 4.00 |
| 42** | High school personnel are not supportive of the open-entry/open-exit vocational system | 2.41 | 4.00 |
| 43 | Higher costs for materials and supplies have resulted from individualization | 2.14 | 3.00 |
| 44 | V-TECS or IDECC materials are not effective or complete for use | 2.55 | 4.00 |
| 49 | Library facilities are not adequate for student needs | 2.53 | 4.00 |

*Mean is greater than 2.0 and the mode is 3.0 or 4.0
**Problems also identified by the total group

# = Number

[a]Scale:
4 Critical problem
3 Significant problem
2 Moderate problem
1 Slight problem
0 Not a problem

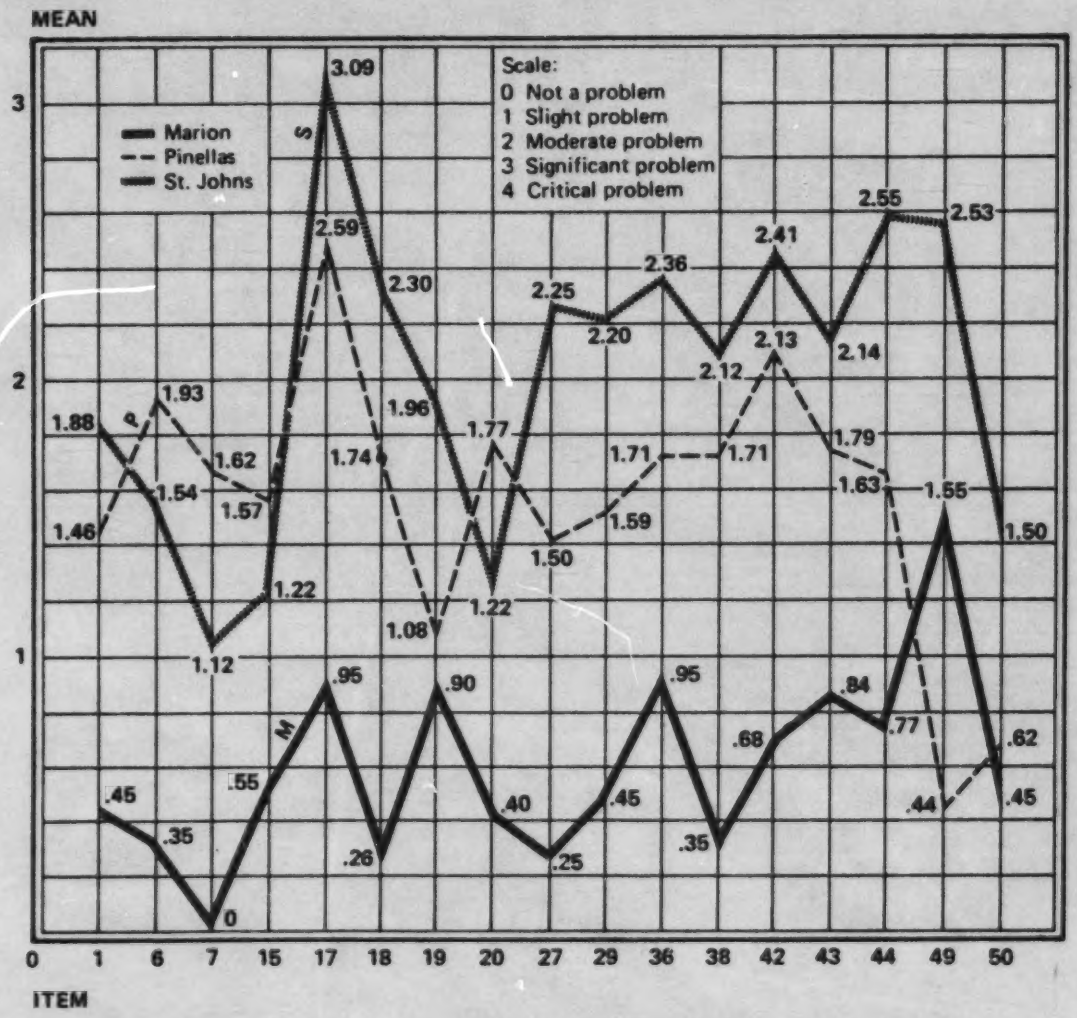


Figure 2. Major differences in perceptions of problems among respondents by position where the means of the groups vary by more than one class interval or 1.0.

in Table 20 of Appendix C, there were no other problems on which all of the groups agreed than the three considered important by the total respondents. The greatest number of important problems was identified by the instructional supervisors. They marked responses which produced means of greater than 2.0 for twenty-six of the problems and modes of 3.0 or 4.0 while the teachers only noted two problems as being important. As mentioned earlier, the total group identified three problems as being important.

Where the means were less than 1.0, the teacher's aides identified seventeen problems as being less difficult while the teachers noted fifteen. However, the instructional supervisors only perceived five problems as causing less difficulty.

There was no major agreement on any of the problems among the six respondent groups where the means among the groups varied by less than .50 or one-half of a class interval. As previously discussed, seventeen major differences were found in analyzing problems by school districts. However, the analysis by positions showed major differences in perceptions of problems on thirty-nine of the fifty items where the means among the groups varied by more than 1.0 or one interval on the scale.

Responses by Program Areas

In analyzing the perceptions of problems by the program areas in Table 21 of Appendix C, great variation

in responses was noted. While the total group only identified three important problems with means greater than 2.0, the health personnel identified twenty-five and the technical participants identified nineteen. On the other hand, the distributive and IMTS groups only specified one important problem.

The total group of respondents indicated that ten of the problems listed caused the least difficulty where the means were less than 1.0. The distributive program area had thirty-two items fall in this category while the IMTS group had twenty-three.

As with the analysis by positions, there was no strong agreement on any of the fifty problems where the means varied less than .50 among the groups. Forty-eight of the fifty items showed major differences in perceptions as the means among the groups varied by more than 1.0 or more than one class interval. A detailed analysis of responses on problems may be found in Appendix C.

## Analysis of Recommendations

Each respondent was asked to indicate the extent to which he/she agreed or disagreed with the twenty-three recommendations listed in the third section of the survey instrument. No side headings were used, but the items were grouped in the following order within four categories: (1) policies and procedures--thirteen items; (2) curriculum

and instruction--four items; (3) staffing and staff development--four items; and (4) facilities, equipment, and materials--two items.

Responses by Total Group

In determining those recommendations on which there was the strongest agreement among the total respondents, ten of the items reflected means of greater than 3.5. Table 9 provides the statistics on each of these.

TABLE 9

RECOMMENDATIONS WITH THE GREATEST AGREEMENT AMONG TOTAL RESPONDENTS*

| Characteristics | Mean | Median | Mode | S.D. |
|---|---|---|---|---|
| High school students should receive credits based on competencies attained, not time involved | 3.61 | 3.80 | 4.00 | .71 |
| Students should be allowed to enter programs anytime if space is available | 3.75 | 3.88 | 4.00 | .58 |
| Specific attendance policies should be developed to insure regular school attendance | 3.74 | 3.87 | 4.00 | .58 |
| Teacher-student ratios should be lower than in the traditional program to promote individualization | 3.61 | 3.83 | 4.00 | .75 |
| FTE Funding formulaes and procedures should be modified to facilitate the open system | 3.64 | 3.80 | 4.00 | .69 |
| Budgets for instructional materials and duplication should be increased to implement the system | 3.65 | 3.79 | 4.00 | .63 |
| A system for informing personnel of new learning resources needs to be developed | 3.55 | 3.64 | 4.00 | .57 |
| Curriculum and instruction should be based on a task analysis of the jobs involved | 3.64 | 3.76 | 4.00 | .61 |
| Students should be tested for ability, aptitude, and interest before instruction begins | 3.61 | 3.82 | 4.00 | .80 |
| A comprehensive inservice plan should be developed for individual staff member needs | 3.60 | 3.77 | 4.00 | .70 |

*Items with a mean greater than 3.50.

Only two of the recommendations indicated some disagreement by the group with means of less than 2.5 and modes of 1.0 or 2.1: number 1, "Compulsory attendance laws should be removed for the high school students in an open-entry/open-exit system," and number 10, "High school students with previous attendance or discipline problems should not be in the open system."

The total group of respondents generally agreed strongly to moderately on the recommendations. Only four of the items produced means of less than 3.0, and only two of the recommendations reflected modes of 1.0 or 2.0.

Responses by School Districts

An analysis of the responses on recommendations by school districts in Table 22 of Appendix D shows a difference from the previous discussions on characteristics and problems. There is much closer agreement among the school districts on the recommendations. Only two of the items, numbers 10 and 21, produced major differences of opinions where the means among the three school districts varied by more than 1.0.

In contrast, eighteen of the twenty-three recommendations showed strong agreement where the means among the groups varied less than .50 or one-half of a class interval. While the total group showed strong agreement on ten of the items by reflecting means of greater than 3.5, the Pinellas respondents indicated strong agreement on sixteen

of the recommendations. The St. Johns group matched the total group on the ten items with strong agreement while Marion respondents only showed a strong agreement for seven items.

Only two additional items showed any disagreement by means other than those reflected by the total group. The Marion respondents reflected a mean of 2.3 on number 21, "Additional curriculum and staff development personnel are needed to improve instruction." The responses of the Pinellas group produced a mean of 2.41 on number 22, "Space and facilities need to be improved in order to achieve more effective learning."

Table 24 in Appendix D identifies the percentage and option numbers of those recommendations with the greatest agreement by total group and school district where 80 percent or more of the responses of a group fell within two consecutive response options. While 80 percent or more of the total respondents selected options three or four (strongly or moderately agree) for eighteen of the twenty-three recommendations, the Marion participants showed great agreement on sixteen of the items and the Pinellas personnel depicted nineteen. The St. Johns group reflected strong agreement on seventeen of the recommendations.

Responses by Positions

In analyzing the recommendations made by positions, greater variations in responses were noted than with the school districts. Figure 3 shows the major differences among the respondents by position where the means of the six groups varied by more than 1.0 or one scale interval.

While the school districts reached major agreement on eighteen of the twenty-three recommendations, the groups by position only reflected major agreement on seven of the recommendations where the means among the groups varied less than .50 or one-half of a scale interval.

Administrators reflected a strong agreement for fourteen of the items, and supervisors noted a strong agreement for thirteen of the items where the means for the items were greater than 3.5. The total group had indicated strong agreement for ten of the recommendations. Both administrators and supervisors strongly recommended number 11, "Licensing agencies should provide certification based upon competencies, not time," while the total group did not.

In analyzing those recommendations on which there was some disagreement, items with means of less than 2.5 were identified. Administrators reflected a mean of only 1.29 on number 22, "Space and facilities need to be improved in order to achieve more effective learning." The total group had shown a mean of 2.61. Clerical aides

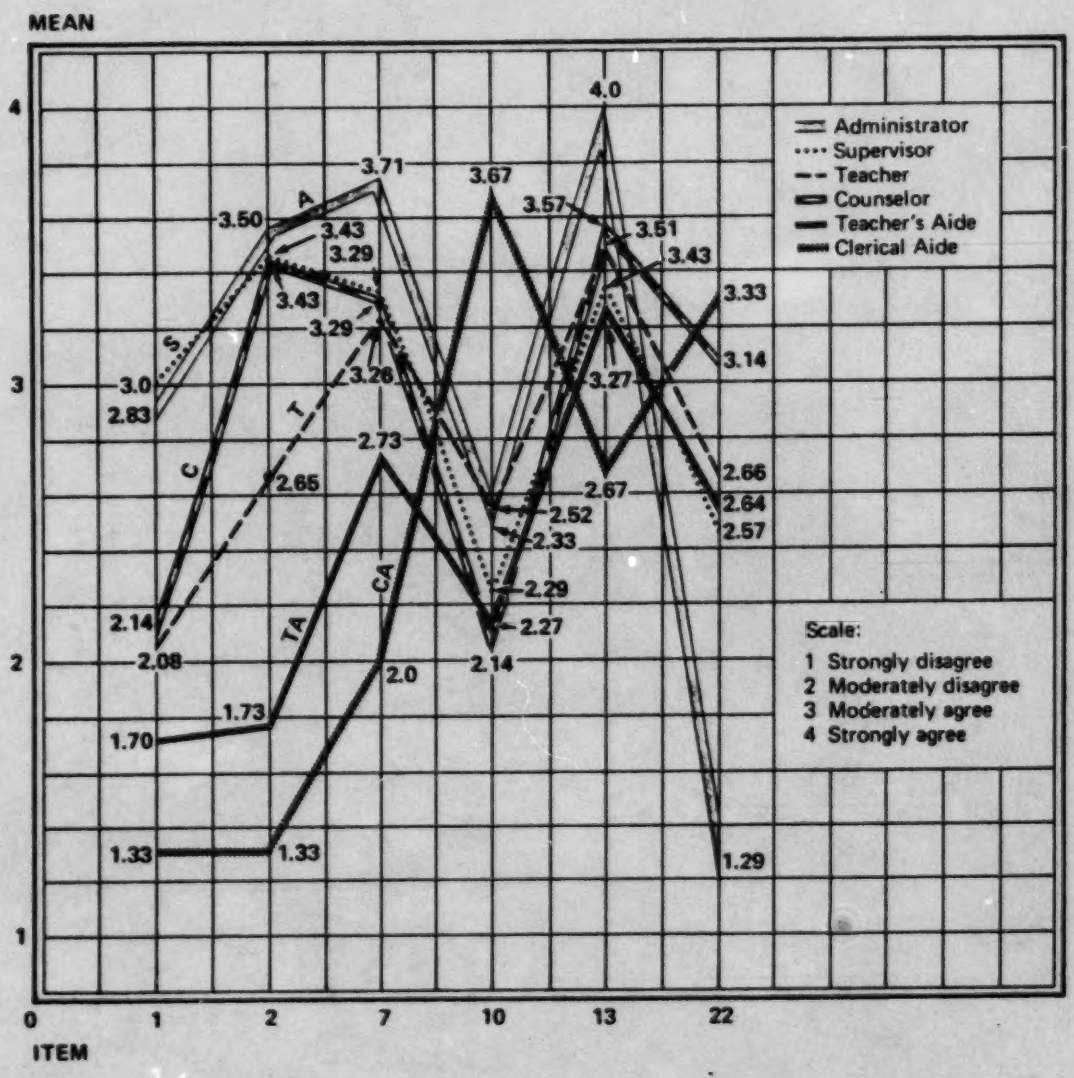


Figure 3. Major differences in recommendations among respondents by position where the means of the groups varied by more than 1.0 or one class interval

indicated a mean of 1.33 and teacher's aides showed a mean of 1.73 on number 2, "Traditional grades of A, B, C, D, F should not have to be given to the high school students." In contrast, the administrators and supervisors reflected a means of 3.50 and 3.43 respectively.

Responses by Program Areas

As discussed earlier and shown in Table 9, ten recommendations reflected strong agreement by the total group. The distributive personnel showed strong agreement on fifteen items and the technical respondents indicated strong agreement on fourteen of the recommendations. Both showed strong agreement on items 16 and 20.

In determining those recommendations on which there was some disagreement items were identified where the means were less than 2.5. Although the total responses resulted in a mean greater than 2.5, five of the program areas showed means less than 2.5 for number 2 regarding letter grades.

Unlike the analyses of recommendations by school districts and positions, the responses by program areas did not reflect any major agreement on recommendations where the means among the nine groups varied less than .50. However, eleven of the twenty-three items did show major differences in perceptions where the means among the groups varied by more than 1.0 or one class interval. A

complete analysis of responses on recommendations may be found in Appendix D.

## Added Items and Comments

An opportunity was provided for the respondent to identify any additional characteristics, problems, and/or recommendations concerning the open-entry/open-exit system of individualized competency-based vocational instruction which were not included in the survey. Space was also provided for the respondent to make comments.

### Added Items

Only five characteristics were added by the total respondents--three from St. Johns personnel, one from a Pinellas participant, and one from a Marion respondent. These included:

| Characteristics | Rating |
|---|---|
| A casual atmosphere with flexibility and freedom of choice exists | 3 |
| High school guidance/career counselors are helpful in recruiting high school students into vocational/technical programs | 1 |

Twenty-seven different problems were added by the respondents. Some of these overlapped with problems which were included in the instrument. Examples of problems which were offered by more than one respondent are:

| Problems | Rating |
|---|---|
| List of state-adopted textbooks is very inadequate | 4 |
| Space and facilities are inadequate for effective instruction | 4 |
| Lack of communication and cooperation exists with the high schools | 4 |
| Lack of clerical help for recordkeeping prohibits teachers from spending more time with their students | 4 |

The respondents provided eleven additional recommendations, some of which coincided with items listed in the survey. Additional recommendations included:

| Recommendations | Rating |
|---|---|
| A complete orientation to the open-entry/open-exit system should be provided to all students when they begin the program | 4 |
| More time should be provided in staff development sessions to develop modules | 4 |
| More commercial instructional materials which are suitable for student needs should be identified | 4 |

A complete summary of characteristics, problems, and recommendations which were added by the respondents may be found in Appendix E.

Added Comments

Respondents were also provided an opportunity to make any additional comments. Fourteen comments were given including:

Materials and facilities are probably the most important items in an open-entry/open-exit system

Students do not feel the competitive nature of the real world when they are in an individualized open-entry/open-exit system

Some programs have the characteristics extensively; others do not have them at all

Since the researcher spent a great deal of time at the school sites obtaining input for the instrument and the study, fewer items and comments may have been added than in other similar studies.

## Analysis of Demographic Data

Fourteen items were included in the fourth section of the survey instrument on demographic data, three of which were used in the tabulation and analysis of data in the preceding pages. Tables 1 and 2 at the beginning of this chapter provided information concerning the school districts, positions, and program areas.

Those tables depicted a greater number of respondents for St. Johns County as well as a greater variety of positions and program areas than the other two school districts.

Table 10 reflects the number and percentage of responses on four items of the demographic data by total respondents and school districts. These results show

distinct differences in the personnel which may account for variations in responses previously discussed.

TABLE 10

NUMBER AND PERCENTAGE OF RESPONSES ON DEMOGRAPHIC DATA BY TOTAL RESPONDENTS AND SCHOOL DISTRICTS

| Demographic Data | Total Group | | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|---|
| | # | % | # | % | # | % | # | % |
| 3 Status of Position | | | | | | | | |
| Full-time | 90 | 76.3 | 5 | 20.0 | 34 | 89.5 | 51 | 85.0 |
| Part-time | 28 | 23.7 | 15 | 75.0 | 4 | 10.5 | 9 | 15.0 |
| 9 Years Teaching Experience | | | | | | | | |
| 0 - 1 year | 28 | 23.7 | 6 | 30.0 | 3 | 7.9 | 19 | 31.7 |
| 2 - 5 years | 43 | 36.4 | 9 | 45.0 | 6 | 15.8 | 28 | 46.7 |
| 6 - 10 years | 26 | 22.0 | 3 | 15.0 | 15 | 39.5 | 8 | 13.2 |
| 11- 20 years | 14 | 11.9 | 1 | 5.0 | 12 | 31.6 | 1 | 1.7 |
| 20 or more years | 4 | 3.3 | 1 | 5.0 | 2 | 5.2 | 1 | 1.7 |
| Not Applicable | 3 | 2.7 | 0 | 0.0 | 0 | 0.0 | 3 | 5.0 |
| 7 Path into Vocational Education | | | | | | | | |
| Bachelor's in vocational areas | 17 | 14.4 | 0 | 0.0 | 10 | 26.3 | 7 | 11.7 |
| Bachelor's in another field | 34 | 28.8 | 6 | 30.0 | 16 | 42.1 | 12 | 20.0 |
| Temporary Certification—Industry | 46 | 39.0 | 6 | 30.0 | 12 | 31.6 | 28 | 46.7 |
| Other | 21 | 17.8 | 8 | 40.0 | 0 | 0.0 | 10 | 16.6 |
| Not Applicable | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 5.0 |
| 8 Level of Professional Preparation | | | | | | | | |
| Coursework | 41 | 34.7 | 9 | 45.0 | 7 | 18.5 | 25 | 41.7 |
| Bachelor's | 30 | 25.4 | 4 | 20.0 | 10 | 26.3 | 16 | 26.7 |
| Master's | 32 | 27.1 | 4 | 20.0 | 19 | 50.0 | 9 | 15.0 |
| Specialist | 7 | 6.0 | 1 | 5.0 | 2 | 5.2 | 4 | 7.6 |
| Doctorate | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Not Applicable | 8 | 6.8 | 2 | 10.0 | 0 | 0.0 | 6 | 10.0 |

# = Number
% = Percentage

A review of the data concerning the status of the respondent's position reveals that only 20 percent of the Marion personnel were employed on a full-time basis while 89.5 percent of the Pinellas group and 85.0 percent of the St. Johns participants were employed full-time

An analysis of the teaching experience reflects

that 78.4 percent of the St. Johns respondents had five years of experience or less as do 75.0 percent of the Marion personnel. However, 76.3 percent of the Pinellas group possessed six years or more of teaching experience in vocational education.

In determining through which path personnel entered the field of vocational education, the Marion participants revealed that none of them began with a bachelor's degree in vocational education, while ten of the Pinellas personnel and seven of the St. Johns group entered with bachelor's degrees in a vocational area. Thirty percent of the Marion respondents and 20 percent of the St. Johns participants entered with bachelor's degrees in other fields while approximately 42 percent of the Pinellas group had bachelor's degrees in other areas. Thus, over 68 percent of the Pinellas personnel entered vocational education with bachelor's degrees, twice as many as either of the other school districts.

A review of the respondents' level of preparation at the time the survey was administered shows that 50 percent of the Pinellas personnal possessed master's degrees and an additional 26 percent had bachelor's degrees. Approximately 58 percent of the St. Johns group had bachelor's, master's, or specialist degrees while 45 percent of the Marion respondents possessed degrees.

From the previous discussion it can be determined that the Pinellas and St. Johns personnel had more formal education, greater vocational education preparation, and more full-time status than the Marion participants. The Pinellas group generally possessed more teaching experience. These factors may account for closer agreement in responses between the Pinellas and St. Johns respondents as indicated earlier. A complete analysis of the demographic data may be found in Appendix F.

## Summary

This chapter has presented and analyzed the data collected, including the procedures followed in tabulating and interpreting the data. Four analyses were made of the responses on characteristics, problems, and recommendations by total respondents, by school districts, by positions, and by program areas.

In addition, a summary of the survey returns and an analysis of the demographic data were provided. Items and comments added by the respondents were also included. The final chapter presents a summary of the procedures and data analysis, finding of the study, conclusions, implications, and recommendations.

# CHAPTER V

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The major purpose of this study was to determine the characteristics, problems, and recommendations for developing and improving open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida by surveying, interviewing, and observing personnel who had been involved in the planning, organization, and implementation of such systems in Marion, Pinellas, and St. Johns Counties, and by reviewing the literature and related research.

Specifically, this study was designed to determine the answers to these questions:

1. What are the characteristics of the three school systems studied and to what extent do they exist as perceived by the total vocational educational personnel surveyed and by the respondents according to their school districts, positions, and instructional program areas?

2. What have been the problems of the three school systems studied and to what extent have they existed as perceived by the total vocational education

personnel surveyed and by the respondents according to their school districts, positions, and instructional program areas?

3. What are the recommendations for the improvement of existing systems and development of new systems as perceived by the total vocational education personnel surveyed and by the respondents according to their school districts, positions, and instructional program areas?

This chapter summarizes the procedures which were employed in this investigation and presents the findings and conclusions formulated from an analysis of the data. Recommendations are made for the development and for the improvement of open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida.

## Summary of Procedures and Data Analysis

This research study was descriptive in nature. The review of the literature and related research identified specific characteristics, potential problems, and pertinent recommendations for open-entry/open-exit systems of individualized competency-based vocational instruction for high school students. Other characteristics, problems, and recommendations were identified through interviews and observations at the school sites by this researcher.

Based upon the input from the literature, research, interviews, and observations, a survey instrument was developed to determine the characteristics, problems, and recommendations for open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida. The personnel surveyed in Marion, Pinellas, and St. Johns Counties represented six positions: building administrators, school and department supervisors, teachers, counselors, teacher's aides, and clerical aides. Nine instructional program areas were represented by the personnel surveyed: agriculture, business education, distributive education, diversified cooperative training, health, home economics, individualized manpower training systems (IMTS), industrial education, and technical education.

The survey instrument was composed of four major sections: (1) characteristics--53 items; (2) problems--50 items; (3) recommendations--23 items; and (4) demographic data--14 items. Each of the first two sections provided a scale with five intervals for respondents to use in recording their responses. The third section provided four intervals. The scale varied for each item in the demographic data section.

Although no side headings were used, items in each of the first three sections were grouped into four categories to facilitate analysis: (1) policies and

procedures; (2) curriculum and instruction; (3) staffing and staff development; and (4) facilities, equipment, and materials.

Open-ended items provided the respondent with an opportunity to identify additional characteristics, problems, and recommendations which were not included in the instrument. The respondent was asked to use the scale appropriate to the particular section. Space was also provided for any additional comments the respondent might have.

The instrument was revised according to input from educators representing: the school districts surveyed; the Department of Education Leadership at Florida State University; and the Division of Vocational Education in the Florida Department of Education. The final instrument was submitted to a field review by the local personnel for validation.

Thirty personnel from the three school districts studied were selected to participate in a test-retest procedure to determine the reliability of the survey instrument. The group represented the six positions and nine program areas included in the final survey. Responses by the thirty participants on the two tests were tabulated to determine their correlation and statistical level of significance for each item in the instrument. All correlation coefficients ranged from .80 to 1.0. Each of the

survey items reflected a .001 level of significance. Thus, the instrument proved to be highly reliable.

The final survey instrument was administered at the sites by this researcher to all the personnel involved with the system for high school students at the Ocala Community High School in Marion County (N=20); all educational staff concerned with the high school students at the St. Petersburg Vocational-Technical Institute in Pinellas County (N=39); and all instructional employees working with high school students at the St. Augustine Technical Center in St. Johns County (N=60). A total of 118, or 99.2 percent, of the survey instruments were returned and tabulated.

After the data were collected, analyses were conducted using the following statistical treatments: the mean, median, mode, standard deviation, frequencies, and percentages of the responses by the total personnel, by the school districts, by the positions, and by the instructional program areas.

Major discrepancies in perceptions among respondents were determined by identifying those statements on which the computed mean ratings among respondent groups varied by one or more intervals on the scale. Major agreement among the participants was determined when the means among the respondent groups varied by less than one-half of a scale interval.

Major differences in perceptions were also determined when less than 70 percent of the responses fell within two consecutive intervals for individual items in the first and second sections which utilized a 5-point rating scale. Major differences in recommendations were identified when less than 80 percent of the responses fell within two consecutive intervals of the scale in that section which used a 4-point rating scale.

## Summary of the Findings

A summary of the findings related to the specific purposes of this study is presented in this section.

### Characteristics

The total group generally perceived most of the fifty-three characteristics as existing very extensively or to a great extent. Five of them were identified by the total group as existing most extensively when the means were greater than 3.5 using a 5-point scale of four to zero.

1. Students may enter the program at any time if space is available.

2. Vocational programs are scheduled at regular times each day of the week.

3. High school students receive regular credits toward a regular high school diploma.

4. Students may progress through the instructional program at their own pace.

5. Students are involved in "hands-on" laboratory experiences with a variety of equipment.

Using the same criteria, the school districts identified additional characteristics which exist most extensively in their system. The Pinellas respondents indicated that student progress sheets and learning activity packages are used very extensively in their programs. The Marion participants maintained that students may leave and reenter the program at any time if space is available and may progress through learning experiences individually at their own pace.

Greater variation was shown in the analysis of responses by positions and instructional program areas. Administrators declared that each student's performance is measured on each of the performance objectives, but the teachers and instructional supervisors did not. Administrators indicated that self-pacing exists extensively in the programs, but the teachers and instructional supervisors did not. Distributive Education personnel perceived twenty-six of the characteristics as existing most extensively while industrial educators only identified five.

Five characteristics were identified by the total group as existing least extensively in their programs by selecting those items with means less than 2.0:

1. Students are admitted to programs on the basis of established selective criteria.

2. Students are involved in the selection and/or development of performance objectives.

3. Students are involved in co-curricular student organizations, such as FFA and DECA.

4. Student and/or volunteer tutors are used to help the students.

5. Teacher's aides are employed to assist with the instruction.

The Marion personnel indicated that students have not necessarily selected a specific career goal before entering a program. The St. Johns group stipulated that students are not given extensive aptitude and interest tests before entering programs. The Pinellas participants reported that vocational learning systems, such as Singer, are not used extensively.

Analysis of characteristics which exist least extensively according to respondents by their positions and program showed great variations in responses. Administrators did not perceive any characteristics as existing less extensively while instructional supervisors reported seven of them. Distributive education personnel only perceived two of the characteristics as existing less extensively while the agriculture teachers reported ten of them.

Problems

Responses by the total group of respondents indidated that they generally have not experienced critical or significant problems. Three of the fifty problems were perceived as important by them where the means were greater than 2.0 using a 5-point scale of four to zero.

1. FTE Funding is not flexible to provide funds for the high school students in an open-entry/open-exist vocational system.

2. The open-entry/open-exit system of individualized competency-based vocational instruction requires a great deal of recordkeeping.

3. High school personnel do not support the open-entry/open-exit vocational system.

In analyzing the responses on problems by school districts, Marion County personnel reported that there were no important problems. Pinellas respondents indicated that attendance policies were too liberal for effective learning and that V-TECS or IDECC materials were not effective or complete for use.

The St. Johns group also reported that the incompleteness or ineffectiveness of V-TECS or IDECC materials was an important problem. In addition, they identified nine others which were not cited by the total group or the other school districts. These included: inadequate time and funds to train staff in starting the open-entry/

open-exit system and to provide continued inservice education; difficulty in organizing use of equipment and learning aids; and difficulty with student evaluation.

An analysis of problems according to the respondents' positions and program areas showed great variations in responses. The instructional supervisors identified twenty-six important problems while the teachers only reported two. One problem designated as important by the supervisors was: some teachers are not adequately trained in educational methods, curriculum, and concepts.

Technical and health respondents perceived twenty-five important problems each while the distributive education and IMTS personnel only identified one important problem each.

Recommendations

The total respondents indicated that they agreed strongly to moderately with twenty-one of the twenty-three recommendations listed. Two recommendations showed some disagreement by the total group where the means were less than 2.5 using a 4-point scale of four to one:

1. Compulsory attendance laws should be removed for the high school students in an open-entry/open-exit system.

2. High school students with previous attendance or discipline problems should not be in the open system.

Ten recommendations showed the strongest agreement by the total respondents where the means were greater than 3.5 using a scale of four to one. These included:

1. High school students should receive credits based on competencies attained, not time involved.

2. Students should be allowed to enter programs at any time if space is available.

3. FTE Funding formulaes and procedures should be modified to facilitate the open system.

4. Budgets for instructional materials and their duplication should be increased to implement the system.

The perceptions of the St. Johns' personnel exactly matched the total group's responses on recommendations. The Pinellas group showed strong agreement on sixteen of them while the Marion respondents only reflected strong agreement on seven of the recommendations.

Greater variation in agreement on recommendations was found in the analysis of responses by the respondents' positions and program areas. Administrators showed strong agreement with fourteen of the items while the supervisors reflected strong agreement on thirteen of the recommendations. Each of these groups strongly recommended that licensing agencies should provide certification based upon competencies, not time.

The distributive education respondents strongly recommended fifteen of the recommendations while the IMTS

personnel only recommended eight of them strongly. The distributive group asserted that students should be allowed to leave and reenter a program as they need if space is available. This was not indicated strongly by the total respondents.

## Conclusions and Implications

The findings on characteristics, problems, and recommendations obtained through the survey instrument and this researcher's visits to the school sites suggest the following conclusions and implications:

1. All of the characteristics, problems, and recommendations included in the survey instrument were appropriate to the planning, organization, and implementation of open-entry/open-exist systems of individualized competency-based vocational instruction for high school students in Florida.

2. Perceptions of the characteristics, problems, and recommendations were moderately influenced by the respondent's school district and greatly influenced by the respondent's position and instructional program area.

3. Most of the characteristics listed in the survey instrument exist to a great extent at the three school sites studied. Although the three systems are organized to facilitate students entering, progressing, and exiting as they are ready, the high school students

are actually prohibited from taking advantage of this system unless they assume an adult status. High school, school board, and state policies concerning time-based credits, scheduling, and FTE Funding policies restrict the open-entry/open-exit concept from implementation for high school students.

4. The effective implementation of the open-entry/open-exit system of individualized competency-based vocational instruction for high school students is limited by: lack of clerical and/or computer assistance for time-consuming recordkeeping; ineffective or incomplete V-TECS materials; inadequate time and funds to train staff; lack of support and cooperation from the feeder high school personnel; insufficient background in educational methods, curriculum, and concepts by some teachers; and lack of student involvement in curriculum decisions and vocational student organizations.

5. The respondents generally do not recommend the removal of compulsory attendance laws for high school students and restricted enrollment of high school students with previous attendance or discipline problems.

6. The respondents generally recommend and support the concept of open-entry/open-exit systems of individualized competency-based vocational instruction for high school students, but they indicate the success of the system is contingent upon policy changes in FTE

Funding, credit requirements, and materials development.

## Recommendations

Based upon the survey findings, the researcher's visits to the school sites, and the review of literature and related research, the following recommendations are made for the improvement of existing open-entry/open-exit systems of individualized competency-based vocational instruction for high school students in Florida.

### Policies and Procedures

1. FTE Funding formulaes and procedures should be revised so that schools may obtain the necessary funds for operation when students enter at different times. A cost analysis of the three systems and their programs would: determine the financial requirements for staff, facilities, equipment, and materials; provide a basis for revising the FTE Funding system; and establish needs for budgeting priorities and amounts.

2. Policies by the following organizations should be revised to provide for credits and certification based upon competencies developed, not time spent in school: legislature, accrediting agencies, licensing boards, state department of education, and local school boards.

3. The state vocational education program review standards should be expanded to include criteria of open-entry/open-exit systems that are consistent with

state laws and state board of education rules.

Curriculum and Instruction

1. Students should be more actively involved in the curriculum planning of their objectives, learning experiences, and evaluation.

2. Students should be provided the opportunity to participate in vocational student organizations, such as VICA and DECA, as specified in the state vocational education program review standards for occupational proficiency.

3. Students should be provided with more prevocational experiences so that they may make better career goal decisions before entering vocational education training programs.

Staffing and Staff Development

1. A comprehensive inservice plan should be developed at each of the schools to maintain and improve instruction. Special attention should be given to: development of individualized competency-based materials; identification and evaluation of learning resources; organization of instruction; systems of recordkeeping; and differences in perceptions of characteristics, problems, and recommendations for their system and programs as reflected in their responses to survey items.

2. A time management study should be conducted at the three school sites studied to determine effective

use of staff, needs for staff, and clarification of job responsibilities in order to alleviate problems in organizing instruction and in keeping records.

3. Teachers should be provided an opportunity to visit other open-entry/open-exit programs of individualized competency-based vocational education for high school students to see new or innovative concepts in action. An exchange system among school districts for professional development might be created and financed by the staff development personnel in the Vocational Education Division of the Florida Department of Education.

4. A comprehensive publicity and public relations plan should be developed by personnel in each of the schools studied to inform high school personnel, school board members, and the community about their programs; to obtain financial and moral support, and to establish needed policies and procedures.

Facilities, Equipment, and Materials

1. Space, facilities, and equipment need to be improved substantially at the Ocala Community High School to provide students with relevant experiences compatible with those they would experience in business and industry.

2. Priority should be given to identifying, developing, and disseminating adequate materials to individualize competency-based vocational instruction.

V-TECS materials should be expanded to include learning activities, student handouts, and evaluation instruments. A comprehensive system should be implemented to inform vocational educators of new and relevant materials as they become available. Procedures and requirements for listing state-adopted textbooks should be revised to facilitate the purchase of new and relevant publications with textbook funds.

3. Computer terminals should be provided at each of the three school sites to efficiently record the competencies developed by students, competencies required for occupations, and other pertinent data.

Further Research

1. Responses on the survey instruments should be analyzed by the respondent's employment status, level of professional preparation, and years of teaching experience to provide additional direction for the improvement of existing open-entry/open-exit systems and the development of new systems.

2. An assessment of the three school systems and their individual programs should be made utilizing a team approach and established criteria.

3. A study should be conducted to compare the open-entry/open-exit system of individualized competency-based vocational education programs and traditional

vocational education programs to determine differences in cost efficiency and student achievement.

4. A study should be conducted to determine the perceptions of the students, parents, community, and other educators regarding the open-entry/open-exit system of individualized competency-based vocational education for high school students in Marion, Pinellas, and St. Johns Counties.

The following recommendations are made for the development of new systems of individualized competency-based vocational instruction for high school students in Florida.

Policies and Procedures

1. A year of extensive planning should be provided before the open-entry/open-exit system is implemented. A comprehensive plan should be presented to the local school board members to obtain their commitment and financial assistance.

2. Specific procedures for recruiting, selecting, testing, prescribing, scheduling, grading, attendance, and credits should be developed.

3. Flexible time schedules without bells should be developed to provide morning and afternoon sessions with mid-morning, lunch, and mid-afternoon breaks which are comparable to business and industry.

4. A comprehensive publicity and public relations

program should be created to inform and involve students, parents, other school personnel, and the community in the planning, organization, and implementation of the new system.

5. The system should be implemented on a small scale with a few programs and expanded gradually to work out problems and to develop experienced resource staff.

Curriculum and Instruction

1. Curriculum and instruction should be based upon manpower needs, task analyses of occupations, student needs, the student's abilities, and the student's career goal.

2. Performance objectives, group and individual learning experiences, and criterion-referenced evaluation measures should be correlated.

3. Students should be provided with a variety of learning experiences and media including: learning activity packages or modules; "hand-on" laboratory equipment; vocational learning systems such as Singer; on-the-job training in the business and industrial community; and vocational student organization activities.

4. Students should be pretested before learning activities are designed, permitted to progress through learning experiences at his/her own pace, and evaluated for achievement on each performance objective.

Staffing and Staff Development

1. A group of enthusiastic and capable personnel should be selected on a voluntary basis to represent all positions and program areas, if possible, in the planning, organization, and implementation of the future system. Release time should be provided for these leaders to visit other schools where the system is in operation and to develop plans and materials.

2. All staff should be involved in extensive and continuous staff and curriculum development sessions for several months prior to the implementation of the new system. Extra planning time should be scheduled for teachers to prepare before and during the implementation of the system. The faculty should be actively involved in departmental and inter-disciplinary planning and team teaching. Teachers, guidance counselors, curriculum coordinators, administrators, and support personnel from the feeder high school should be included in planning as much as possible to develop cooperation.

3. Retired persons, housewives, university students, and local business people should be involved on a voluntary or part-time pay basis to act as tutors, teacher's aides, and clerical aides.

Facilities, Equipment, and Materials

1. Space and facilities should be analyzed and redesigned if necessary to provide open, flexible spaces and storage for student use and access to materials.

2. Additional funds should be allocated to purchase, develop, and/or duplicate the required materials and equipment compatible with business and industry.

# APPENDICES

# APPENDIX A

## COVER LETTER, SURVEY INSTRUMENT AND ENDORSEMENT LETTER

RALPH D. TURLINGTON
COMMISSIONER

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

Dear Colleague:

Since you are a pioneer in providing an open-entry/open-exit system of individualized competency-based vocational instruction to our secondary students in Florida, your input is needed to assist others in planning, organizing, and implementing similar programs throughout the state.

This survey provides you with an opportunity to share your knowledge and experience with others concerning the characterisitcs and problems of the open-entry/open-exit system, as well as to make recommendations for the effective operation of programs using this system. The results of this survey will benefit you by identifying areas in which assistance can be provided to aid you in improving instruction.

There are no right or wrong answers, so do not hesitate to respond to each of the statements according to your own thoughts. The survey is divided into four major sections. The first section, characterisitcs, asks you to indicate the extent to which each characteristic exists in your program.

The second section, problems, asks you to indicate the extent to which you have experienced problems or are experiencing problems in planning, organizing, and operating the open-entry/open-exit system with secondary students. The third section, recommendations, offers you some recommendations which may or may not improve the program. Each of these sections provides you space at the end of the statements to include any other items you believe are important.

The last section, demographic data, asks you for information about you, your program, and your school to assist us in analyzing the data. No name is requested. We are interested only in summaries and comparisons by positions, program areas, counties, and other classifications.

We appreciate your participation and cooperation in assisting us to help others to plan, organize, and implement programs similar to yours.

Sincerely,

Barbara J. Wilkie

Barbara J. Wilkie
Project Manager
Open-Entry/Open-Exit System

AN ANALYSIS OF OPEN-ENTRY/OPEN-EXIT SYSTEMS OF
INDIVIDUALIZED COMPETENCY-BASED VOCATIONAL INSTRUCTION
FOR SECONDARY STUDENTS WITHIN SELECTED FLORIDA SCHOOL DISTRICTS

## C H A R A C T E R I S T I C S

Directions: Please indicate the extent to which each characteristic exists in your program by placing a check mark (✓) in the appropriate space to the right of the characteristic using the following rating scale:

4 = Very Extensively
3 = To a Great Extent
2 = To Some Extent
1 = To a Little Extent
0 = Does Not Exist
NA = Does Not Apply

| PROGRAM CHARACTERISTICS | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|
| 1. Students may enter the instructional program at any time if space is available | | | | | |
| 2. High school students are graded on a pass/fail or mastery/nonmastery basis | | | | | |
| 3. Students must attend classes regularly in order to remain in the program | | | | | |
| 4. Vocational programs are scheduled at regular times each day of the week | | | | | |
| 5. IMTS instruction is scheduled at regular times each day of the week | | | | | |
| 6. Students may schedule a vocational program one to six hours per day as needed | | | | | |
| 7. The student has a progress sheet on which he/she can keep a record of his progress | | | | | |
| 8. Students are admitted to programs on the basis of established selective criteria | | | | | |
| 9. Students are admitted to programs on a first-come, first-serve basis | | | | | |

| PROGRAM CHARACTERISTICS | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|
| 10. Students are given aptitude and interest tests before they are admitted to programs | | | | | |
| 11. Students receive a record of their competency attainment when they leave/graduate | | | | | |
| 12. High school students receive regular credits toward a regular high school diploma | | | | | |
| 13. Students may leave and reenter the program at any time if space is available | | | | | |
| 14. Policies and procedures are revised according to input from staff and students | | | | | |
| 15. Students have selected a specific career goal before entering a program | | | | | |
| 16. Objectives are selected/developed according to the student's vocational goal | | | | | |
| 17. Objectives are based upon an occupational task analysis of the jobs involved | | | | | |
| 18. Objectives are selected from V-TECS, IDECC, or other competency-based vocational system | | | | | |
| 19. Students are involved in the selection and/or development of objectives | | | | | |
| 20. Objectives are selected/developed which specify performance and proficiency level | | | | | |
| 21. Students are pretested before learning experiences are assigned to them | | | | | |
| 22. Each student's performance is measured on each of the performance objectives | | | | | |
| 23. Students may progress through the program at their own pace | | | | | |
| 24. Students may choose among different learning experiences for the same objective | | | | | |
| 25. Students use learning activity packages or modules in the program | | | | | |

| PROGRAM CHARACTERISITCS | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|
| 26. Students use a variety of instructional media during their learning experiences | | | | | |
| 27. Students use vocational learning systems such as Singer | | | | | |
| 28. Students are involved in co-curricular student organizations, such as FFA and DECA | | | | | |
| 29. Students are involved in "hands-on" lab experiences with a variety of equipment | | | | | |
| 30. Students use programmed instructional materials in the program | | | | | |
| 31. Students progress through learning experiences individually at their own pace | | | | | |
| 32. Students work in groups of varying size as a part of their learning experiences | | | | | |
| 33. Students are provided on-the-job training as a part of their instruction | | | | | |
| 34. Students are placed in a job related to their training when they graduate | | | | | |
| 35. Each student receives an individualized learning prescription based on needs | | | | | |
| 36. An advisory committee for the specific career field is used to update the program | | | | | |
| 37. Program offerings are based upon manpower needs surveys of occupational opportunities | | | | | |
| 38. Curriculum content is continually updated to community needs and student interests | | | | | |
| 39. Placement and followup studies of graduates are used to make curriculum decisions | | | | | |
| 40. Hours of instruction are determined by occupational requirements and student needs | | | | | |
| 41. IMTS instruction is correlated with the standards of the Florida Literacy Tests | | | | | |

| PROGRAM CHARACTERISITCS | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|
| 42. All staff are actively involved in the development/selection of materials | | | | | |
| 43. Student and/or volunteer tutors are used to help students | | | | | |
| 44. Teacher aides are employed to assist with instruction | | | | | |
| 45. Building administrator is supportive of and works well with teachers | | | | | |
| 46. Inservice education is provided to meet the needs of staff | | | | | |
| 47. Vocational guidance counselors are available to assist students | | | | | |
| 48. Academic guidance counselors are provided to assist students | | | | | |
| 49. Space and facilities are adequate for the instructional program | | | | | |
| 50. A sufficient number of laboratory/work stations is available to meet student needs | | | | | |
| 51. An adequate amount of commercial competency-based instructional materials is available | | | | | |
| 52. Sufficient consumable and instructional materials are provided for the program | | | | | |
| 53. Facilities and equipment are compatible with those used in industry | | | | | |
| Please list other characteristics existing in your open-entry/open-exit program and rate them | | | | | |
| 54. | | | | | |
| 55. | | | | | |
| 56. | | | | | |

## PROBLEMS

Directions: Please indicate the extent to which each of the problems listed below has existed in your program by placing a check mark (✓) in the appropriate space to the right of each problem using the following rating scale:

4 = Critical problem
3 = Significant Problem
2 = Moderate Problem
1 = Slight Problem
0 = Not a Problem
NA = Does Not Apply

| PROBLEMS | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|
| 1. Selection criteria for admitting students has not specifically been established | | | | | |
| 2. Selection criteria for admitting students is too restrictive | | | | | |
| 3. Adequate testing of students' abilities, aptitudes, and interests is not available | | | | | |
| 4. High school students are prevented from entering the program when they are ready | | | | | |
| 5. High school students are prevented from leaving the program when they are ready | | | | | |
| 6. High school credits are based upon time, rather than competencies developed | | | | | |
| 7. High school students must be given academic grades such as A, B, C, D, F | | | | | |
| 8. High school students are restricted by state compulsory attendance laws | | | | | |
| 9. Attendance policies for the students are too liberal for effective learning | | | | | |
| 10. Difficulty in scheduling students, faculty, and courses has been evident | | | | | |

| PROBLEMS | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|
| 11. Transportation for high school students is not provided to the center | | | | | |
| 12. Transportation between the high school and center is not geared to student needs | | | | | |
| 13. Licensing agencies still require hours for certification rather than competencies | | | | | |
| 14. Students have not been adequately oriented to the open-entry/open-exit system | | | | | |
| 15. Community and school personnel resist giving credits based on competencies, not time | | | | | |
| 16. FTE Funding is not flexible to provide the funds for theopen-entry/open-exit system | | | | | |
| 17. The open-entry/open-exit system requires a great deal of recordkeeping | | | | | |
| 18. High school students may have to graduate before they have needed competencies | | | | | |
| 19. High school students must withdraw from high school to enroll in IMTS | | | | | |
| 20. Class time for high school students is not sufficient for effective learning | | | | | |
| 21. Students are not sufficiently involved in planning their learning prescription | | | | | |
| 22. Community and business resources are not actively involved in curriculum planning | | | | | |
| 23. Community and business resources are not actively involved in program evaluation | | | | | |
| 24. Selection and/or development of objectives is difficult for the teacher | | | | | |
| 25. Organizing group activities while individualizing instruction is difficult | | | | | |
| 26. Organizing individual use of equipment and learning aids is difficult | | | | | |

| PROBLEMS | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|
| 27. Keeping accurate and updated records of a student's progress is difficult | | | | | |
| 28. Evaluation of student performance is difficult | | | | | |
| 29. Student-teacher ratio is too high to enable effective individualized instruction | | | | | |
| 30. Students are not sufficiently motivated to handle the open-entry/open-exit system | | | | | |
| 31. Students are not actively involved in student organizations, such as VICA, DECA, FFA | | | | | |
| 32. Students are not provided cooperative on-the-job training as a part of instruction | | | | | |
| 33. Students are not placed on the job at the completion of their instruction | | | | | |
| 34. Adequate placement and followup studies are not conducted for curriculum decisions | | | | | |
| 35. Some teachers are not adequately trained in educational methods, curriculum, concepts | | | | | |
| 36. Adequate time and funds were not provided to train staff in starting the open system | | | | | |
| 37. Adequate time and funds are not provided for inservice education/staff development | | | | | |
| 38. Sufficient clerical/support staff have not been provided for effective instruction | | | | | |
| 39. Higher staff costs have resulted from a lower student-teacher ratio | | | | | |
| 40. Some instructors interpret individualized instructions as students working alone | | | | | |
| 41. Some instructors place too much emphasis on programmed instruction or LAPS | | | | | |
| 42. High school personnel are not supportive of the open-entry/open-exit vocational system | | | | | |

| PROBLEMS | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|
| 43. Higher costs for materials and supplies have resulted from indiviudalization | | | | | |
| 44. V-TECS or IDECC materials are not effective or complete for use | | | | | |
| 45. Appropriate materials for achieving speci-performance objectives are not available | | | | | |
| 46. Quantity of appropriate instructional materials is not provided by the school system | | | | | |
| 47. State-adopted texts are not appropriate for effective learning | | | | | |
| 48. State curriculum materials are not relevant for effective learning | | | | | |
| 49. Library facilities are not adequate for student needs | | | | | |
| 50. Space and facilities are inadequate for effective learning | | | | | |
| Please list any other problems you have had in implementing the open-entry/open-exit system | | | | | |
| 51. | | | | | |
| 52. | | | | | |
| 53. | | | | | |
| 54. | | | | | |
| 55. | | | | | |

Comments:

## RECOMMENDATIONS

Directions: Please indicate the extent to which you agree with each of the following recommendations for implementing and overcoming problems of open-entry/open-exit systems of individualized secondary competency-based vocational instruction. At the end please give any other recommendations you might have. The following rating scale should be used:

4 = Strongly Agree
3 = Moderately Agree
2 = Moderately Disagree
1 = Strongly Disagree
NA = Does Not Apply

| RECOMMENDATIONS | 4 | 3 | 2 | 1 |
|---|---|---|---|---|
| 1. Compulsory attendance laws should be removed for the high school students in an open-entry/open-exit system | | | | |
| 2. Traditional grades of A, B, C, D, F should not have to be given to the high school students | | | | |
| 3. High school students should receive credits based on competencies attained, rather than time involved | | | | |
| 4. Students should be allowed to enter programs if space is available | | | | |
| 5. Specific attendance policies should be developed to insure regular school attendance | | | | |
| 6. Teacher-student ratios should be lower than in the traditional program to promote individualization | | | | |
| 7. Students should be allowed to leave and reenter a program as they need if space is available | | | | |
| 8. FTE Funding formulaes and procedures should be modified to facilitate an open-entry/open-exit system | | | | |
| 9. Budgets for instructional materials and their duplication should be increased to implement the system | | | | |
| 10. High school students with previous attendance or discipline problems should not be in this open system | | | | |

| RECOMMENDATIONS | 4 | 3 | 2 | 1 |
|---|---|---|---|---|
| 11. Licensing agencies should provide certification based upon competencies, not time | | | | |
| 12. A system for informing personnel of new learning resources needs to be developed | | | | |
| 13. DOE Program Standards should reflect the criteria of an open-entry/open-exit system | | | | |
| 14. Co-curricular student organizations, such as VICA and FFA should be available | | | | |
| 15. Curriculum and instruction should be based on a task analysis of the jobs involved | | | | |
| 16. Program offerings should be determined by local manpower surveys and student interest | | | | |
| 17. Students should be tested for ability, aptitude, and interest before instruction begins | | | | |
| 18. Teachers should have a month of full-time planning before implementing an open system | | | | |
| 19. A comprehensive inservice plan should be developed for individual staff member needs | | | | |
| 20. Additional instructional and clerical aides are needed for more effective learning | | | | |
| 21. Additional curriculum and staff development personnel are needed to improve instruction | | | | |
| 22. Space and facilities need to be improved in order to achieve more effective learning | | | | |
| 23. V-TECS should be expanded to include learning activities and evaluation instruments | | | | |
| Please list any other recommendations and rate them according to the scale given. | | | | |
| 24. | | | | |
| 25. | | | | |
| 26. | | | | |

## DEMOGRAPHIC DATA

Please supply the following information to assist in the analysis of the responses given on this survey by placing a check mark (✓) on the lines to the left of your answers. A few statements may require more than one check mark.

1. School district in which you are employed:

   ___ 1. Marion ___ 2. Pinellas ___ 3. St. Johns

2. Position in which you are employed:

   ___ 1. Instructor ___ 2. Teacher's Aide ___ 3. Counselor
   ___ 4. Administrator ___ 5. Clerical Aide ___ 6. Supervisor

3. Status of your position:

   ___ 1. Full-time ___ 2. Part-time

4. Number of years in your current position:

   ___ 1. 0-1 year ___ 2. 2-5 years ___ 3. 6-10 years
   ___ 4. 11-20 years ___ 5. 20 or more years

5. Program service area(s) in which you work (if applicable):

   ___ 1. Agriculture ___ 2. Diversified ___ 3. IMTS
   ___ 4. Business/Office ___ 5. Health ___ 6. Industrial
   ___ 7. Distributive ___ 8. Home Economics ___ 9. Technical

6. Position(s) and subject matter in which you are certified:

   ___ 1. Teacher - _____ (specify) ___ 2. Coordinator
   ___ 3. Supervisor - _____ (specify) ___ 4. Director
   ___ 5. Other - _____ (specify) ___ 6. Counselor

7. Path through which you entered vocational education:

   ___ 1. Bachelor's in vocational area ___ 2. Temporary Certification
   ___ 3. Bachelor's in another field ___ 4. Other _____

8. Level of your professional preparation:

   ___ 1. Coursework ___ 2. Bachelor's ___ 3. Master's
   ___ 4. Specialist ___ 5. Doctorate

9. Number of years of vocational education teaching experience:

___ 1. 0-1 year ___ 2. 2-5 years ___ 3. 6-10 years
___ 4. 11-20 years ___ 5. 20 or more years

10. Your sex is:

___ 1. Male ___ 2. Female

11. Your majority race is:

___ 1. Caucasian ___ 2. Black ___ 3. Hispanic
___ 4. Indian ___ 5. Asian

12. Number of years your program has been open-entry/open-exit:

___ 1. Under 1 year ___ 2. 1-2 years ___ 3. 3-5 years

13. Number of years high school students have been in the open system:

___ 1. Under 1 year ___ 2. 1-2 years ___ 3. 3-5 years

14. Number of feeder high schools into your program:

___ 1. 1-2 schools ___ 2. 3-4 schools ___ 3. 5-6 schools

RALPH D. TURLINGTON
COMMISSIONER

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

May 10, 1978

Mr. H. Leon Rogers, Superintendent
Marion County Schools
512 S. E. 3rd Street
Ocala, Florida 32670

Dear Mr. Rogers:

Congratulations on the excellent progress you and the staff of Community High School have made in developing an open-entry-exit system of individualized competency-based instruction. As you know, I am extremely interested in the expansion of systems similiar to yours throughout Florida schools where educators have a sincere desire to bring about meaningful change in vocational programs.

To accomplish this mission a project entitled "Assessing the Impact of an Open-entry to Open-exit System and Individualized Competency Based Vocational Teachers and Administrators within selected Florida School Districts" has been awarded to the St. Johns County School Board. It is designed to produce a description of facilitating factors crucial to the implementation of a competency-based system for secondary students as a partial basis for developing guidelines that may be useful to educators desiring to establish open-entry-exit programs of Vocational Education.

Miss Barbara Wilkie, Project Manager will need your cooperation in completing the study and I would consider your support as a personal favor to the expansion of high quality vocational programs in Florida.

Please accept my appreciation for your support of the study. Data collected from persons successful in implementing open-entry-exit programs will supply our colleagues with the necessary information to bring about meaningful change in vocational programs.

Cordially,

Joe D. Mills, Director
Division of Vocational Education

hgm

cc: Douglas Hartley
Barbara Wilkie
Samuel Lauff, Jr.

# APPENDIX B

## ANALYSIS OF RESPONSES ON CHARACTERISTICS

TABLE 11

ANALYSIS ON PERCEPTIONS OF CHARACTERISTICS BY RESPONDENTS BY TOTAL GROUP AND SCHOOL DISTRICT

| Program Characteristics | Total | | | | Marion | | | | Pinellas | | | | St. Johns | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD |
| 1 | 3.72 | 3.88 | 4.0 | .74 | 3.85 | 3.94 | 4.0 | .49 | 3.71 | 3.79 | 4.0 | .46 | 3.68 | 3.90 | 4.0 | .92 |
| 2 | 2.39 | 2.86 | 4.0 | 1.61 | 3.20 | 3.59 | 4.0 | 1.15 | 2.06 | 2.79 | 0.0 | 1.83 | 2.29 | 2.50 | 4.0 | 1.55 |
| 3 | 3.09 | 3.12 | 3.0 | .79 | 3.00 | 3.00 | 2.0 | .86 | 3.09 | 3.14 | 3.0 | .83 | 3.12 | 3.14 | 3.0 | .75 |
| 4 | 3.82 | 3.93 | 4.0 | .61 | 3.95 | 3.97 | 4.0 | .22 | 3.88 | 3.93 | 4.0 | .37 | 3.75 | 3.91 | 4.0 | .78 |
| 5 | 3.37 | 3.80 | 4.0 | 1.25 | 2.00 | 2.00 | 0.0 | 1.92 | 3.68 | 3.89 | 4.0 | .86 | 3.69 | 3.84 | 4.0 | .70 |
| 6 | 2.48 | 2.87 | 4.0 | 1.55 | 2.63 | 3.00 | 4.0 | 1.50 | 2.88 | 3.53 | 4.0 | 1.43 | 2.21 | 2.42 | 4.0 | 1.60 |
| 7 | 2.80 | 3.27 | 4.0 | 1.41 | 3.15 | 3.73 | 4.0 | 1.46 | 3.92 | 3.61 | 4.0 | .97 | 2.40 | 2.59 | 4.0 | 1.50 |
| 8 | 1.94 | 2.00 | 2.0 | 1.38 | 2.60 | 2.50 | 4.0 | 1.39 | 2.77 | 2.86 | 3.0 | .99 | 1.24 | 1.08 | 0.0 | 1.19 |
| 9 | 3.07 | 3.36 | 4.0 | 1.12 | 3.15 | 3.50 | 4.0 | .99 | 2.82 | 3.13 | 4.0 | 1.31 | 3.19 | 3.43 | 4.0 | 1.03 |
| 10 | 2.15 | 2.17 | 2.0 | 1.35 | 2.20 | 2.17 | 2.0 | 1.51 | 2.41 | 2.50 | 2.0 | 1.33 | 1.98 | 2.00 | 2.0 | 1.30 |
| 11 | 3.05 | 3.39 | 4.0 | 1.14 | 3.42 | 3.71 | 4.0 | .90 | 2.88 | 2.89 | 3.0 | .82 | 3.02 | 3.59 | 4.0 | 1.34 |
| 12 | 3.67 | 3.92 | 4.0 | .94 | 3.80 | 3.90 | 4.0 | .89 | 3.39 | 3.85 | 4.0 | 1.31 | 3.78 | 3.92 | 4.0 | .67 |
| 13 | 3.29 | 3.63 | 4.0 | 1.03 | 3.75 | 3.88 | 4.0 | .55 | 3.03 | 3.39 | 4.0 | 1.17 | 3.29 | 3.61 | 4.0 | 1.04 |
| 14 | 2.74 | 2.84 | 3.0 | 1.02 | 3.20 | 3.25 | 3.0 | .77 | 3.00 | 3.10 | 3.0 | .95 | 2.44 | 2.48 | 2.0 | 1.04 |
| 15 | 2.21 | 2.19 | 2.0 | .90 | 1.68 | 1.82 | 2.0 | .82 | 2.50 | 2.50 | 2.0 | .93 | 2.22 | 2.19 | 2.0 | .83 |
| 16 | 2.59 | 2.71 | 3.0 | 1.12 | 2.50 | 2.64 | 3.0 | 1.19 | 2.79 | 2.83 | 3.0 | .95 | 2.50 | 2.66 | 3.0 | 1.19 |
| 17 | 3.03 | 3.17 | 4.0 | 1.00 | 2.84 | 3.05 | 3.0 | 1.17 | 3.06 | 3.17 | 3.0 | .95 | 3.08 | 3.25 | 4.0 | .98 |
| 18 | 2.51 | 2.65 | 3.0 | 1.20 | 2.74 | 2.81 | 3.0 | .99 | 2.50 | 2.71 | 3.0 | 1.11 | 2.43 | 2.47 | 2.0 | 1.33 |
| 19 | 1.49 | 1.41 | 1.0 | 1.12 | 1.79 | 1.80 | 1.0 | 1.18 | 1.68 | 1.68 | 2.0 | 1.07 | 1.29 | 1.16 | 1.0 | 1.12 |
| 20 | 3.18 | 3.34 | 4.0 | .93 | 3.11 | 3.64 | 4.0 | 1.29 | 3.46 | 3.53 | 4.0 | .62 | 3.05 | 3.15 | 3.0 | .92 |
| 21 | 2.48 | 2.52 | 4.0 | 1.34 | 2.60 | 2.50 | 4.0 | 1.50 | 2.68 | 2.75 | 4.0 | 1.20 | 2.32 | 2.42 | 2.0 | 1.36 |
| 22 | 3.31 | 3.46 | 4.0 | .86 | 3.55 | 3.79 | 4.0 | .95 | 3.38 | 3.50 | 4.0 | .70 | 3.19 | 3.29 | 3.0 | .91 |
| 23 | 3.52 | 3.75 | 4.0 | .83 | 3.80 | 3.88 | 4.0 | .41 | 3.62 | 3.76 | 4.0 | .60 | 3.37 | 3.68 | 4.0 | 1.00 |
| 24 | 2.40 | 2.38 | 2.0 | 1.15 | 2.45 | 2.64 | 3.0 | 1.23 | 2.56 | 2.42 | 2.0 | 1.02 | 2.31 | 2.28 | 2.0 | 1.21 |
| 25 | 3.19 | 3.54 | 4.0 | 1.01 | 3.15 | 3.67 | 4.0 | 1.23 | 3.50 | 3.69 | 4.0 | .75 | 3.02 | 3.23 | 4.0 | 1.03 |
| 26 | 3.33 | 3.49 | 4.0 | .77 | 3.70 | 3.83 | 4.0 | .57 | 3.24 | 3.29 | 3.0 | .74 | 3.25 | 3.39 | 4.0 | .82 |
| 27 | 2.32 | 2.39 | 4.0 | 1.38 | 3.22 | 3.81 | 4.0 | 1.44 | 1.65 | 1.69 | 0.0 | 1.28 | 2.41 | 2.42 | 2.0 | 1.25 |
| 28 | 1.18 | .95 | 0.0 | 1.23 | .31 | .12 | 0.0 | .70 | 1.81 | 1.78 | 2.0 | 1.22 | 1.09 | .83 | 0.0 | 1.18 |
| 29 | 3.60 | 3.84 | 4.0 | .86 | 3.37 | 3.71 | 4.0 | 1.07 | 3.72 | 3.91 | 4.0 | .81 | 3.61 | 3.84 | 4.0 | .81 |
| 30 | 2.98 | 3.18 | 4.0 | 1.07 | 3.20 | 3.59 | 4.0 | 1.15 | 2.68 | 2.86 | 3.0 | 1.09 | 3.09 | 3.29 | 4.0 | 1.01 |
| 31 | 3.47 | 3.64 | 4.0 | .76 | 3.80 | 3.88 | 4.0 | .41 | 3.47 | 3.50 | 4.0 | .56 | 3.36 | 3.61 | 4.0 | .91 |
| 32 | 2.58 | 2.49 | 4.0 | 1.21 | 2.60 | 2.90 | 4.0 | 1.43 | 2.15 | 1.96 | 2.0 | 1.08 | 2.81 | 2.91 | 4.0 | 1.15 |
| 33 | 2.27 | 2.53 | 4.0 | 1.55 | .65 | .27 | 0.0 | 1.12 | 2.20 | 2.20 | 2.0 | 1.30 | 2.86 | 3.54 | 4.0 | 1.41 |
| 34 | 2.54 | 2.79 | 3.0 | 1.28 | .94 | .50 | 0.0 | 1.21 | 3.00 | 3.03 | 3.0 | .70 | 2.81 | 2.97 | 4.0 | 1.14 |
| 35 | 2.59 | 2.80 | 4.0 | 1.33 | 3.30 | 3.79 | 4.0 | 1.30 | 2.59 | 2.70 | 3.0 | 1.18 | 2.36 | 2.46 | 4.0 | 1.35 |
| 36 | 2.78 | 3.30 | 4.0 | 1.39 | 1.53 | 1.43 | 0.0 | 1.51 | 3.03 | 3.58 | 4.0 | 1.22 | 3.02 | 3.55 | 4.0 | 1.27 |
| 37 | 2.81 | 2.94 | 4.0 | 1.09 | 2.37 | 2.43 | 2.0 | 1.17 | 2.90 | 2.96 | 3.0 | .96 | 2.93 | 3.13 | 4.0 | 1.11 |
| 38 | 3.02 | 3.27 | 4.0 | 1.04 | 3.10 | 3.25 | 3.0 | .97 | 3.18 | 3.32 | 4.0 | .87 | 2.90 | 3.13 | 4.0 | 1.14 |
| 39 | 2.45 | 2.63 | 3.0 | 1.20 | 1.89 | 1.83 | 0.0 | 1.45 | 2.93 | 3.00 | 3.0 | .94 | 2.37 | 2.57 | 3.0 | 1.16 |
| 40 | 2.70 | 2.93 | 3.0 | 1.24 | 3.15 | 3.36 | 4.0 | 1.04 | 3.10 | 3.29 | 4.0 | 1.08 | 2.35 | 3.50 | 3.0 | 1.29 |
| 41 | 2.52 | 2.72 | 3.0 | 1.29 | 3.18 | 3.73 | 4.0 | 1.38 | 2.00 | 2.25 | 0.0 | 1.51 | 2.54 | 2.65 | 3.0 | .98 |
| 42 | 3.05 | 3.18 | 4.0 | .96 | 3.26 | 3.25 | 3.0 | .63 | 3.52 | 3.61 | 4.0 | .98 | 2.83 | 2.88 | 3.0 | .99 |
| 43 | 1.97 | 1.90 | 2.0 | 1.28 | 1.94 | 1.50 | 4.0 | 1.70 | 1.91 | 1.96 | 2.0 | 1.08 | 2.02 | 1.90 | 2.0 | 1.25 |
| 44 | 1.87 | 1.87 | 0.0 | 1.49 | 2.68 | 3.38 | 4.0 | 1.64 | 1.44 | 1.60 | 0.0 | 1.60 | 1.85 | 1.69 | 0.0 | 1.48 |
| 45 | 2.92 | 3.13 | 4.0 | 1.10 | 3.47 | 3.71 | 4.0 | .96 | 2.82 | 2.85 | 2.0 | .98 | 2.81 | 3.03 | 4.0 | 1.16 |
| 46 | 2.59 | 2.57 | 2.0 | 1.06 | 2.47 | 2.42 | 2.0 | 1.35 | 2.50 | 2.38 | 2.0 | .96 | 2.68 | 2.74 | 3.0 | 1.03 |
| 47 | 3.03 | 3.18 | 4.0 | .98 | 3.79 | 3.87 | 4.0 | .42 | 2.85 | 3.00 | 3.0 | 1.05 | 2.90 | 2.98 | 3.0 | .96 |
| 48 | 2.90 | 3.17 | 4.0 | 1.18 | 3.84 | 3.91 | 4.0 | .38 | 2.21 | 2.20 | 1.0 | 1.43 | 2.98 | 3.08 | 4.0 | .96 |
| 49 | 2.84 | 3.04 | 3.0 | 1.13 | 2.90 | 3.00 | 3.0 | .94 | 3.12 | 4.31 | 4.0 | 1.09 | 2.66 | 2.84 | 3.0 | 1.18 |
| 50 | 2.78 | 2.94 | 3.0 | 1.08 | 2.95 | 3.05 | 3.0 | .91 | 3.03 | 3.23 | 4.0 | 1.06 | 2.59 | 2.75 | 3.0 | 1.16 |
| 51 | 2.69 | 2.77 | 3.0 | 1.07 | 2.84 | 2.89 | 3.0 | .83 | 2.97 | 3.14 | 4.0 | 1.03 | 2.48 | 2.45 | 2.0 | 1.13 |
| 52 | 3.06 | 3.14 | 3.0 | .88 | 2.90 | 3.00 | 3.0 | .99 | 3.35 | 3.43 | 4.0 | .69 | 2.95 | 3.02 | 3.0 | .92 |
| 53 | 3.05 | 3.21 | 4.0 | 1.00 | 2.50 | 2.67 | 3.0 | 1.20 | 3.33 | 3.50 | 4.0 | .88 | 3.08 | 3.20 | 3.0 | .93 |

Note. $\bar{X}$ = mean; Me = median; Mo = mode; SD = standard deviation

TABLE 12

NUMBER AND PERCENTAGE OF CHARACTERISTICS BY CATEGORY, EXTENSIVENESS, AND SCHOOL DISTRICT

| Category | Extensiveness* | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % |
| Policies and Procedures | Not Exist-Little Extent | — | — | — | — | — | — |
| | Little Extent-Some Extent | — | — | — | — | 2 | 14 |
| | Some Extent-Great Extent | 4 | 29 | 6 | 43 | 4 | 29 |
| | Great Extent-Very Extensive | 10 | 71 | 8 | 57 | 8 | 57 |
| Curriculum and Instruction | Not Exist-Little Extent | 3 | 11 | — | — | — | — |
| | Little Extent-Some Extent | 4 | 14 | 3 | 11 | 2 | 7 |
| | Some Extent-Great Extent | 7 | 25 | 12 | 43 | 16 | 57 |
| | Great Extent-Very Extensive | 14 | 50 | 13 | 46 | 10 | 36 |
| Staffing and Staff Development | Not Exist-Little Extent | — | — | — | — | — | — |
| | Little Extent-Some Extent | 1 | 17 | 2 | 33 | 1 | 17 |
| | Some Extent-Great Extent | 2 | 33 | 4 | 67 | 5 | 83 |
| | Great Extent-Very Extensive | 3 | 50 | — | — | — | — |
| Facilities Equipment Materials | Not Exist-Little Extent | — | — | — | — | — | — |
| | Little Extent-Some Extent | — | — | — | — | — | — |
| | Some Extent-Great Extent | 5 | 100 | 1 | 20 | 4 | 80 |
| | Great Extent-Very Extensive | — | — | 4 | 80 | 1 | 20 |

Means

*0.0 - 0.99 Not Exist-Little Extent
1.0 - 1.99 Little Extent-Some Extent
2.0 - 2.99 Some Extent-Great Extent
3.0 - 4.00 Great Extent-Very Extensive

# = Number
% = Percentage

TABLE 13

PERCENTAGE AND OPTION NUMBERS OF CHARACTERISTICS WITH GREATEST AGREEMENT BY TOTAL GROUP AND SCHOOL DISTRICT*

| Characteristics | Total Group | | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|---|
| Item # | Percent | Option # | Percent | Option # | Percent | Option # | Percent | Option # |
| 1 | 96.5 | 3, 4 | 95.0 | 3, 4 | 100.0 | 3, 4 | 94.5 | 3, 4 |
| 2 | — | — | 80.0 | 3, 4 | — | — | — | — |
| 3 | 75.2 | 3, 4 | — | — | 76.5 | 3, 4 | 78.0 | 3, 4 |
| 4 | — | — | 100.0 | 3, 4 | 100.0 | 3, 4 | 96.6 | 3, 4 |
| 5 | 86.2 | 3, 4 | — | — | 92.9 | 3, 4 | 96.3 | 3, 4 |
| 6 | — | — | — | — | — | — | — | — |
| 7 | — | — | — | — | 79.4 | 3, 4 | — | — |
| 8 | — | — | — | — | — | — | — | — |
| 9 | 74.3 | 3, 4 | 70.0 | 3, 4 | — | — | 81.4 | 3, 4 |
| 10 | — | — | — | — | — | — | — | — |
| 11 | 72.9 | 3, 4 | 84.2 | 3, 4 | 72.7 | 2, 3 | 72.4 | 3, 4 |
| 12 | 91.8 | 3, 4 | 95.0 | 4 | 83.7 | 3, 4 | 86.4 | 3, 4 |
| 13 | 82.3 | 3, 4 | 95.0 | 3, 4 | 73.5 | 3, 4 | 83.1 | 3, 4 |
| 14 | — | — | 80.0 | 3, 4 | 76.5 | 3, 4 | — | — |
| 15 | — | — | 78.9 | 4, 5 | 70.6 | 2, 3 | 81.4 | 2, 3 |
| 16 | — | — | — | — | — | — | — | — |
| 17 | 74.0 | 3, 4 | — | — | 75.0 | 3, 4 | — | — |
| 18 | — | — | — | — | — | 3, 4 | — | — |
| 19 | — | — | — | — | — | — | — | — |
| 20 | 81.1 | 3, 4 | 73.7 | 3, 4 | 93.7 | 3, 4 | 76.3 | 3, 4 |
| 21 | — | — | — | — | — | — | — | — |
| 22 | 89.3 | 3, 4 | 95.0 | 3, 4 | 88.2 | 3, 4 | 87.9 | 3, 4 |
| 23 | 91.2 | 3, 4 | 100.0 | 3, 4 | 94.1 | 3, 4 | 86.4 | 3, 4 |
| 24 | — | — | — | — | — | — | — | — |
| 25 | 74.3 | 3, 4 | 70.0 | 3, 4 | 91.2 | 3, 4 | — | — |
| 26 | 85.0 | 3, 4 | 95.0 | 3, 4 | 82.4 | 3, 4 | 83.1 | 3, 4 |
| 27 | — | — | 77.8 | 3, 4 | — | — | — | — |
| 28 | — | — | 87.5 | 0, 1 | — | — | — | — |
| 29 | 90.5 | 3, 4 | 84.2 | 3, 4 | 84.4 | 3, 4 | 90.7 | 3, 4 |
| 30 | 71.7 | 3, 4 | 80.0 | 3, 4 | — | — | 72.9 | 3, 4 |
| 31 | 92.0 | 3, 4 | 100.0 | 3, 4 | 97.1 | 3, 4 | 86.4 | 3, 4 |
| 32 | — | — | — | — | 70.6 | 1, 2 | — | — |
| 33 | — | — | 82.4 | 0, 1 | — | — | — | — |
| 34 | — | — | 72.2 | 0, 1 | 83.2 | 3, 4 | — | — |
| 35 | — | — | 80.0 | 3, 4 | — | — | — | — |
| 36 | — | — | — | — | — | — | 70.9 | 3, 4 |
| 37 | — | — | — | — | — | — | — | — |
| 38 | 71.7 | 3, 4 | 80.0 | 3, 4 | 76.5 | 3, 4 | — | — |
| 39 | — | — | — | — | — | — | — | — |
| 40 | — | — | 80.0 | 3, 4 | 80.6 | 3, 4 | — | — |
| 41 | — | — | 76.5 | 3, 4 | — | — | — | — |
| 42 | 74.1 | 3, 4 | 89.5 | 3, 4 | 85.3 | 3, 4 | — | — |
| 43 | — | — | — | — | — | — | — | — |
| 44 | — | — | — | — | — | — | — | — |
| 45 | 70.1 | 3, 4 | 94.7 | 3, 4 | — | — | — | — |
| 46 | — | — | — | — | 73.5 | 2, 3 | — | — |
| 47 | 73.2 | 3, 4 | 100.0 | 3, 4 | — | — | — | — |
| 48 | — | — | 100.0 | 3, 4 | — | — | — | — |
| 49 | — | — | 73.7 | 3, 4 | 79.4 | 3, 4 | — | — |
| 50 | — | — | 78.9 | 3, 4 | 75.0 | 3, 4 | — | — |
| 51 | — | — | — | — | 70.6 | 3, 4 | — | — |

*Eighty percent or more of the responses for a group fell within two consecutive options.

# = Number
% = Percentage

## TABLE 14

ANALYSIS OF PERCEPTIONS OF CHARACTERISTICS BY RESPONDENTS
BY TOTAL GROUP AND POSITION

| Program Characteristics | Total | | | | Administrators | | | | Supervisors | | | | Teachers | | | | Counselors | | | | Teacher Aides | | | | Clerical Aides | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD |
| 1 | 3.72 | 3.80 | 4.0 | .74 | 3.71 | 3.80 | 4.0 | .69 | 3.71 | 3.80 | 4.0 | .69 | 3.67 | 3.87 | 4.0 | .85 | 3.86 | 3.92 | 4.0 | .38 | 3.91 | 3.95 | 4.0 | .30 | 4.00 | 4.00 | 4.0 | 0.00 |
| 2 | 2.39 | 2.86 | 4.0 | 1.61 | 3.43 | 3.63 | 4.0 | .79 | .86 | .38 | 0.0 | 1.46 | 2.22 | 2.63 | 4.0 | 1.62 | 1.67 | 1.86 | 4.0 | .82 | 2.82 | 3.33 | 4.0 | 1.54 | 3.67 | 3.75 | 4.0 | .58 |
| 3 | 3.09 | 3.12 | 3.0 | .79 | 3.14 | 3.13 | 3.0 | .69 | 2.86 | 2.75 | 2.0 | .90 | 3.10 | 3.22 | 3.0 | .75 | 3.00 | 3.00 | 2.0 | 1.00 | 2.64 | 2.42 | 2.0 | .81 | 3.00 | 3.00 | 2.0 | 1.00 |
| 4 | 3.02 | 3.93 | 4.0 | .61 | 3.29 | 3.00 | 4.0 | 1.50 | 4.00 | 4.00 | 4.0 | 0.00 | 3.02 | 3.92 | 4.0 | .56 | 4.00 | 4.00 | 4.0 | 0.00 | 4.00 | 4.00 | 4.0 | 0.00 | 3.67 | 3.75 | 4.0 | .58 |
| 5 | 3.37 | 3.80 | 4.0 | 1.25 | 3.29 | 3.00 | 4.0 | 1.50 | 3.86 | 3.92 | 4.0 | .38 | 3.30 | 3.00 | 4.0 | 1.35 | 3.43 | 3.67 | 4.0 | 1.51 | 3.40 | 3.50 | 4.0 | .70 | 3.67 | 3.75 | 4.0 | .58 |
| 6 | 2.40 | 2.87 | 4.0 | 1.55 | 3.43 | 3.63 | 4.0 | .79 | 1.57 | .38 | 0.0 | 1.99 | 2.67 | 3.11 | 4.0 | 1.47 | 2.29 | 2.08 | 4.0 | 1.70 | 1.55 | 1.67 | 0.0 | 1.64 | 3.67 | 2.00 | 0.0 | 1.53 |
| 7 | 2.80 | 3.27 | 4.0 | 1.41 | 3.14 | 3.25 | 4.0 | .90 | 2.00 | 2.00 | 2.0 | 1.29 | 3.03 | 3.57 | 4.0 | 1.36 | 3.00 | 3.00 | 2.0 | .89 | 1.73 | 1.67 | 0.0 | 1.68 | 1.67 | 2.00 | 0.0 | 1.53 |
| 8 | 1.94 | 2.00 | 2.0 | 1.38 | 3.14 | 3.63 | 4.0 | 1.22 | 1.00 | .88 | 1.0 | 1.00 | 2.01 | 2.20 | 2.0 | 1.35 | 2.57 | 2.33 | 2.0 | 1.13 | .91 | .42 | 0.0 | 1.16 | 1.67 | 2.00 | 0.0 | 1.53 |
| 9 | 3.07 | 3.36 | 4.0 | 1.12 | 3.14 | 3.13 | 3.0 | .69 | 3.29 | 3.33 | 3.0 | .76 | 2.91 | 3.22 | 4.0 | 1.24 | 3.29 | 3.33 | 3.0 | .76 | 3.73 | 3.82 | 4.0 | .47 | 3.67 | 1.75 | 4.0 | .58 |
| 10 | 2.15 | 2.17 | 2.0 | 1.35 | 2.43 | 2.67 | 3.0 | 1.13 | 1.29 | 1.63 | 2.0 | .95 | 2.26 | 2.29 | 2.0 | 1.36 | 2.00 | 2.00 | 0.0 | 1.73 | 1.91 | 2.08 | 2.0 | 1.22 | 2.00 | 2.00 | 2.0 | 2.00 |
| 11 | 3.05 | 3.39 | 4.0 | 1.14 | 3.29 | 3.63 | 4.0 | .95 | 3.43 | 3.63 | 4.0 | .79 | 3.12 | 3.39 | 4.0 | 1.05 | 3.29 | 3.63 | 4.0 | .95 | 2.09 | 1.38 | 1.0 | 1.70 | 2.67 | 3.00 | 1.0 | 1.53 |
| 12 | 3.67 | 3.92 | 4.0 | .94 | 4.00 | 4.00 | 4.0 | 0.00 | 3.86 | 3.92 | 4.0 | .38 | 3.57 | 3.89 | 4.0 | 1.09 | 3.67 | 3.88 | 4.0 | .82 | 4.00 | 4.00 | 4.0 | 0.00 | 4.00 | 4.00 | 4.0 | 0.00 |
| 13 | 3.29 | 3.63 | 4.0 | 1.03 | 3.57 | 3.88 | 4.0 | .79 | 3.29 | 3.33 | 3.0 | .76 | 3.21 | 3.59 | 4.0 | 1.10 | 3.71 | 3.88 | 4.0 | .49 | 3.46 | 3.82 | 4.0 | 1.21 | 3.33 | 3.25 | 3.0 | .58 |
| 14 | 2.74 | 2.84 | 3.0 | 1.02 | 3.29 | 3.33 | 3.0 | .76 | 2.29 | 2.33 | 2.0 | 1.25 | 2.86 | 2.96 | 3.0 | 1.03 | 2.71 | 2.88 | 3.0 | .49 | 2.00 | 2.00 | 2.0 | .70 | 2.33 | 2.50 | 3.0 | 1.16 |
| 15 | 2.21 | 2.19 | 2.0 | .98 | 2.43 | 2.38 | 2.0 | .54 | 2.14 | 2.33 | 2.0 | 1.07 | 2.22 | 2.17 | 2.0 | .93 | 2.29 | 2.13 | 2.0 | .95 | 2.09 | 2.13 | 2.0 | .83 | 2.00 | 2.00 | 1.0 | 1.00 |
| 16 | 2.59 | 2.71 | 3.0 | 1.12 | 2.86 | 2.92 | 3.0 | .38 | 3.00 | 3.00 | 3.0 | .82 | 2.55 | 2.65 | 3.0 | 1.19 | 2.57 | 2.63 | 3.0 | .54 | 2.55 | 2.75 | 1.0 | 1.37 | 2.33 | 2.00 | 1.0 | 1.53 |
| 17 | 3.03 | 3.17 | 4.0 | 1.08 | 3.14 | 3.00 | 3.0 | .38 | 3.00 | 3.00 | 3.0 | .82 | 3.07 | 3.25 | 4.0 | 1.02 | 2.33 | 2.75 | 3.0 | 1.21 | 3.14 | 3.63 | 4.0 | 1.22 | 3.00 | 3.00 | 2.0 | 1.41 |
| 18 | 2.51 | 2.65 | 3.0 | 1.20 | 2.57 | 2.38 | 2.0 | .79 | 2.57 | 2.67 | 3.0 | .98 | 2.37 | 2.57 | 3.0 | 1.29 | 2.60 | 2.33 | 2.0 | .89 | 3.50 | 3.50 | 3.0 | .54 | 3.00 | 3.00 | 2.0 | 1.41 |
| 19 | 1.69 | 1.41 | 1.0 | 1.12 | 2.14 | 2.13 | 2.0 | .69 | 1.00 | 1.00 | 1.0 | .82 | 1.51 | 1.36 | 1.0 | 1.15 | 1.57 | 1.00 | 2.0 | .79 | 1.27 | 1.00 | 0.0 | 1.35 | 1.33 | 1.00 | 0.0 | 1.53 |
| 20 | 3.10 | 3.34 | 4.0 | .93 | 3.43 | 3.63 | 4.0 | .79 | 3.14 | 3.25 | 4.0 | .90 | 3.10 | 3.26 | 3.0 | .98 | 3.67 | 3.75 | 4.0 | .52 | 3.36 | 3.58 | 4.0 | .81 | 3.00 | 3.00 | 2.0 | 1.00 |
| 21 | 2.48 | 2.52 | 4.0 | 1.34 | 2.57 | 2.63 | 3.0 | .54 | 2.29 | 2.33 | 2.0 | 1.25 | 2.45 | 2.46 | 4.0 | 1.38 | 3.14 | 3.25 | 4.0 | .90 | 2.36 | 2.33 | 4.0 | 1.57 | 2.33 | 3.00 | 0.0 | 2.08 |
| 22 | 3.31 | 3.46 | 4.0 | .86 | 3.57 | 3.63 | 4.0 | .54 | 3.29 | 3.33 | 3.0 | .76 | 3.31 | 3.45 | 4.0 | .86 | 3.14 | 3.25 | 4.0 | .90 | 3.27 | 3.58 | 4.0 | 1.19 | 3.33 | 3.25 | 3.0 | .58 |
| 23 | 3.52 | 3.75 | 4.0 | .83 | 3.71 | 3.88 | 4.0 | .49 | 3.14 | 3.25 | 4.0 | .90 | 3.46 | 3.72 | 4.0 | .91 | 3.57 | 3.63 | 4.0 | .54 | 3.91 | 3.95 | 4.0 | .30 | 4.00 | 4.00 | 4.0 | 0.00 |
| 24 | 2.40 | 2.38 | 2.0 | 1.15 | 2.43 | 2.33 | 2.0 | .98 | 2.00 | 2.00 | 2.0 | 1.29 | 2.42 | 2.46 | 2.0 | 1.19 | 1.71 | 1.00 | 2.0 | .69 | 2.73 | 2.75 | 4.0 | 1.19 | 3.33 | 3.25 | 3.0 | .58 |
| 25 | 3.19 | 3.54 | 4.0 | 1.01 | 2.86 | 2.75 | 2.0 | .90 | 3.14 | 3.25 | 4.0 | 1.07 | 3.13 | 3.50 | 4.0 | 1.06 | 3.00 | 3.00 | 2.0 | 1.00 | 3.82 | 3.89 | 4.0 | .41 | 3.67 | 3.75 | 4.0 | .58 |
| 26 | 3.33 | 3.49 | 4.0 | .77 | 3.43 | 3.38 | 3.0 | .54 | 2.71 | 2.88 | 3.0 | .95 | 3.28 | 3.46 | 4.0 | .80 | 3.57 | 3.63 | 4.0 | .54 | 3.73 | 3.81 | 4.0 | .47 | 3.67 | 3.75 | 4.0 | .58 |
| 27 | 2.32 | 2.39 | 4.0 | 1.38 | 2.86 | 3.00 | 3.0 | 1.07 | 2.43 | 2.33 | 2.0 | .98 | 2.04 | 2.06 | 2.0 | 1.47 | 3.43 | 3.63 | 4.0 | .79 | 2.82 | 2.67 | 2.0 | .87 | 3.33 | 3.50 | 4.0 | 1.16 |
| 28 | 1.18 | .95 | 0.0 | 1.21 | 2.20 | 2.25 | 2.0 | .84 | .86 | .60 | 0.0 | 1.46 | 1.20 | 1.00 | 0.0 | 1.22 | 1.29 | 1.67 | 0.0 | 1.25 | .82 | .42 | 0.0 | 1.25 | 1.00 | 1.00 | 1.0 | 1.00 |
| 29 | 3.60 | 3.84 | 4.0 | .86 | 4.00 | 4.00 | 4.0 | 0.0 | 3.71 | 3.88 | 4.0 | .69 | 3.59 | 3.84 | 4.0 | .90 | 3.43 | 3.60 | 4.0 | .98 | 3.33 | 3.75 | 4.0 | 1.12 | 4.00 | 4.00 | 4.0 | 0.00 |
| 30 | 2.98 | 3.18 | 4.0 | 1.07 | 2.29 | 2.13 | 2.0 | .95 | 2.71 | 2.67 | 2.0 | .76 | 3.01 | 3.30 | 4.0 | 1.15 | 3.29 | 3.33 | 3.0 | .76 | 3.20 | 3.38 | 4.0 | .79 | 2.67 | 2.51 | 2.0 | 1.16 |
| 31 | 3.47 | 3.64 | 4.0 | .76 | 3.71 | 3.88 | 4.0 | .49 | 3.14 | 3.25 | 4.0 | .90 | 3.41 | 3.57 | 4.0 | .80 | 3.57 | 3.63 | 4.0 | .54 | 3.73 | 3.89 | 4.0 | .65 | 4.00 | 4.00 | 4.0 | 0.00 |
| 32 | 2.58 | 2.49 | 4.0 | 1.21 | 2.57 | 2.33 | 2.0 | 1.13 | 3.00 | 3.00 | 3.0 | .82 | 2.51 | 2.50 | 4.0 | 1.26 | 2.29 | 2.25 | 2.0 | 1.38 | 2.91 | 3.00 | 4.0 | 1.14 | 2.67 | 2.50 | 2.0 | 1.16 |
| 33 | 2.27 | 2.33 | 4.0 | 1.35 | 2.50 | 3.00 | 3.0 | 1.64 | 3.14 | 3.63 | 4.0 | 1.22 | 2.19 | 2.17 | 4.0 | 1.48 | 1.00 | .50 | 0.0 | 1.67 | 2.50 | 3.50 | 4.0 | 1.85 | 4.00 | 4.00 | 4.0 | 0.00 |
| 34 | 2.54 | 2.79 | 3.0 | 1.20 | 2.86 | 2.88 | 3.0 | .69 | 3.29 | 3.20 | 3.0 | .49 | 2.50 | 2.80 | 3.0 | 1.29 | 1.50 | 1.33 | 0.0 | 1.51 | 2.75 | 2.50 | 4.0 | 1.39 | 3.00 | 3.00 | 2.0 | 1.41 |
| 35 | 2.59 | 2.80 | 4.0 | 1.33 | 2.57 | 2.33 | 2.0 | 1.13 | 2.00 | 2.00 | 1.0 | 1.41 | 2.50 | 2.76 | 4.0 | 1.30 | 3.57 | 3.88 | 4.0 | .79 | 2.64 | 3.25 | 4.0 | 1.63 | 2.00 | 2.00 | 2.0 | 2.00 |
| 36 | 2.70 | 3.30 | 4.0 | 1.39 | 3.60 | 3.67 | 4.0 | .55 | 2.71 | 3.00 | 4.0 | .49 | 2.71 | 3.19 | 4.0 | 1.43 | 2.00 | 2.00 | 2.0 | 1.63 | 3.11 | 3.33 | 4.0 | 1.05 | 2.00 | 2.00 | 2.0 | 2.00 |
| 37 | 2.81 | 2.94 | 4.0 | 1.09 | 2.86 | 2.92 | 3.0 | .38 | 3.29 | 3.63 | 4.0 | .95 | 2.79 | 2.93 | 4.0 | 1.13 | 2.29 | 2.13 | 2.0 | .95 | 2.09 | 3.25 | 4.0 | 1.36 | 3.50 | 3.50 | 3.0 | .71 |
| 38 | 3.02 | 3.22 | 4.0 | 1.04 | 3.57 | 3.88 | 4.0 | .79 | 3.00 | 3.63 | 4.0 | 1.29 | 3.05 | 3.19 | 4.0 | .97 | 2.57 | 2.67 | 3.0 | .98 | 2.91 | 3.50 | 4.0 | 1.38 | 2.33 | 2.00 | 1.0 | 1.53 |
| 39 | 2.45 | 2.63 | 3.0 | 1.20 | 2.43 | 2.63 | 3.0 | .79 | 2.14 | 2.25 | 3.0 | .90 | 2.61 | 2.79 | 3.0 | 1.23 | 1.86 | 2.00 | 0.0 | 1.57 | 1.91 | 2.13 | 2.0 | 1.14 | 2.67 | 2.75 | 3.0 | .58 |
| 40 | 2.70 | 2.93 | 3.0 | 1.24 | 3.57 | 3.63 | 4.0 | .54 | 2.71 | 3.00 | 4.0 | 1.50 | 2.78 | 2.94 | 3.0 | 1.13 | 2.86 | 3.00 | 4.0 | 1.22 | 1.82 | 2.00 | 0.0 | 1.66 | 1.67 | 2.00 | 0.0 | 1.53 |
| 41 | 2.52 | 2.72 | 3.0 | 1.29 | 3.17 | 3.50 | 4.0 | .98 | 2.67 | 2.83 | 3.0 | 1.03 | 2.25 | 2.67 | 3.0 | 1.39 | 3.00 | 3.50 | 4.0 | 1.27 | 2.67 | 2.50 | 2.0 | .82 | 2.67 | 2.50 | 2.0 | 1.16 |
| 42 | 3.05 | 3.18 | 4.0 | .96 | 3.57 | 3.63 | 4.0 | .54 | 3.00 | 3.00 | 3.0 | .82 | 3.01 | 3.17 | 4.0 | 1.03 | 2.67 | 2.75 | 3.0 | .52 | 3.18 | 3.33 | 4.0 | .87 | 3.33 | 3.50 | 4.0 | 1.16 |
| 43 | 1.97 | 1.98 | 2.0 | 1.28 | 2.86 | 3.00 | 3.0 | 1.07 | 2.57 | 2.75 | 2.0 | 1.40 | 1.74 | 1.89 | 2.0 | 1.20 | 1.67 | 1.80 | 2.0 | .82 | 2.55 | 2.25 | 4.0 | 1.44 | 1.00 | 3.25 | 4.0 | 1.73 |
| 44 | 1.87 | 1.87 | 0.0 | 1.49 | 2.86 | 2.75 | 2.0 | .90 | 1.00 | .38 | 0.0 | 1.53 | 1.60 | 1.36 | 0.0 | 1.47 | 1.17 | 1.17 | 3.0 | .75 | 2.55 | 2.33 | 4.0 | 1.29 | 1.33 | 3.50 | 4.0 | 1.16 |
| 45 | 2.92 | 3.13 | 4.0 | 1.10 | 3.29 | 3.33 | 3.0 | .76 | 3.57 | 3.88 | 4.0 | .79 | 2.92 | 3.11 | 4.0 | 1.07 | 2.20 | 2.25 | 2.0 | 1.40 | 2.64 | 2.75 | 4.0 | 1.36 | 3.00 | 3.00 | 3.0 | 1.00 |
| 46 | 2.59 | 2.57 | 2.0 | 1.06 | 3.29 | 3.33 | 3.0 | .76 | 2.71 | 2.88 | 3.0 | .95 | 2.58 | 2.47 | 2.0 | .99 | 2.17 | 2.17 | 2.0 | 1.33 | 2.36 | 2.25 | 4.0 | 1.50 | 2.67 | 3.00 | 1.0 | 1.53 |
| 47 | 3.03 | 3.18 | 4.0 | .98 | 3.14 | 3.25 | 4.0 | .90 | 2.14 | 2.25 | 2.0 | 1.35 | 3.10 | 3.26 | 4.0 | .95 | 3.67 | 3.75 | 4.0 | .52 | 2.73 | 2.42 | 2.0 | .91 | 3.00 | 3.00 | 3.0 | 1.00 |
| 48 | 2.98 | 3.17 | 4.0 | 1.18 | 2.43 | 2.25 | 4.0 | 1.62 | 2.14 | 2.00 | 2.0 | 1.46 | 2.91 | 3.16 | 4.0 | 1.16 | 3.67 | 3.75 | 4.0 | .52 | 3.09 | 3.25 | 4.0 | .94 | 3.33 | 3.50 | 4.0 | 1.16 |
| 49 | 2.84 | 3.04 | 3.0 | 1.13 | 3.14 | 3.13 | 3.0 | .69 | 3.43 | 3.88 | 4.0 | 1.13 | 2.72 | 2.94 | 4.0 | 1.22 | 3.33 | 3.50 | 4.0 | .82 | 2.82 | 2.92 | 3.0 | .87 | 3.00 | 3.00 | 3.0 | 0.00 |
| 50 | 2.78 | 2.94 | 3.0 | 1.08 | 3.14 | 3.00 | 3.0 | .38 | 3.00 | 3.25 | 4.0 | 1.16 | 2.67 | 2.82 | 4.0 | 1.18 | 3.17 | 3.17 | 3.0 | .75 | 2.91 | 3.00 | 3.0 | .83 | 3.00 | 3.00 | 3.0 | 0.00 |
| 51 | 2.69 | 2.77 | 3.0 | 1.07 | 3.29 | 3.33 | 3.0 | .76 | 2.43 | 2.13 | 2.0 | 1.13 | 2.65 | 2.79 | 3.0 | 1.12 | 2.50 | 2.50 | 2.0 | .55 | 2.82 | 2.72 | 2.0 | 1.08 | 3.00 | 3.00 | 3.0 | 0.00 |
| 52 | 3.06 | 3.16 | 3.0 | .88 | 2.57 | 3.63 | 4.0 | .54 | 3.43 | 3.38 | 3.0 | .54 | 2.96 | 3.05 | 3.0 | .95 | 3.17 | 3.17 | 3.0 | .75 | 3.18 | 3.20 | 3.0 | .75 | 3.00 | 3.00 | 3.0 | 1.00 |
| 53 | 3.05 | 3.21 | 4.0 | 1.00 | 3.29 | 3.33 | 3.0 | .76 | 3.71 | 3.88 | 4.0 | .49 | 2.95 | 3.10 | 3.0 | 1.04 | 3.00 | 3.00 | 4.0 | .65 | 2.75 | 2.83 | 3.0 | 1.04 | 3.00 | 3.00 | 3.0 | 1.00 |

Note. $\bar{X}$ = mean; Me = median; Mo = mode; SD = standard deviation.

TABLE 15

GREATEST AGREEMENT BY MEANS IN PERCEPTIONS OF PROGRAM CHARACTERISTICS OF RESPONDENT GROUPS BY POSITION*

| Characteristic | Total | Administrator | Supervisor | Teacher | Counselor | Teacher Aide | Clerical Aide |
|---|---|---|---|---|---|---|---|
| # 1 | 3.72 | 3.71 | 3.71 | 3.67 | 3.86 | 3.91 | 4.00 |
| 12 | 3.67 | 4.00 | 3.86 | 3.57 | 3.67 | 4.00 | 4.00 |
| 13 | 3.29 | 3.57 | 3.29 | 3.21 | 3.71 | 3.46 | 3.33 |
| 15 | 2.21 | 2.43 | 2.14 | 2.22 | 2.29 | 2.09 | 2.00 |
| 22 | 3.31 | 3.57 | 3.29 | 3.31 | 3.14 | 3.27 | 3.33 |
| 50 | 2.78 | 3.14 | 3.00 | 2.67 | 3.17 | 2.91 | 3.00 |

*Difference in mean among the respondent groups varied by less than .05 or one-half of a class interval on an item.

## TABLE 16

ANALYSIS OF PERCEPTIONS OF CHARACTERISTICS BY RESPONDENTS
BY TOTAL GROUP AND PROGRAM AREAS

| Program Characteristics | Total | | | | Agriculture | | | | Bus./Office | | | | Distributive | | | | Diversified | | | | Health | | | | Home Economics | | | | IMPS | | | | Industrial | | | | Technical | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD |
| 1 | 3.72 | 3.88 | 4.0 | .74 | 3.50 | 3.50 | 3.0 | .58 | 3.75 | 3.83 | 4.0 | .45 | 4.00 | 4.00 | 4.0 | 0.00 | 2.75 | 3.50 | 4.0 | 1.04 | 0.0 | 0.0 | 0.0 | 0.0 | 3.60 | 3.67 | 4.0 | .55 | 3.90 | 3.96 | 4.0 | .41 | 3.71 | 3.88 | 4.0 | .75 | 4.00 | 4.00 | 4.0 | 0.00 |
| 2 | 2.39 | 2.86 | 4.0 | 1.61 | 1.00 | .67 | 0.0 | 2.00 | 2.17 | 2.50 | 4.0 | 1.70 | 2.67 | 3.00 | 4.0 | 2.31 | 3.25 | 3.50 | 4.0 | .96 | 0.0 | 0.0 | 0.0 | 0.0 | 1.60 | 1.33 | 0.0 | 2.19 | 2.09 | 3.48 | 4.0 | 1.33 | 2.62 | 3.05 | 4.0 | 1.48 | 1.43 | 1.00 | 1.0 | 1.51 |
| 3 | 3.09 | 3.12 | 3.0 | .79 | 3.75 | 3.83 | 4.0 | .50 | 3.33 | 3.64 | 4.0 | .09 | 3.33 | 3.50 | 4.0 | 1.16 | 3.00 | 3.00 | 2.0 | 1.16 | 3.0 | 3.0 | 3.0 | 0.0 | 3.00 | 3.00 | 3.0 | .71 | 2.97 | 2.96 | 3.0 | .73 | 2.97 | 3.00 | 3.0 | .82 | 3.50 | 3.50 | 3.0 | .54 |
| 4 | 3.82 | 3.93 | 4.0 | .61 | 4.00 | 4.00 | 4.0 | 0.00 | 3.83 | 3.90 | 4.0 | .39 | 3.67 | 3.75 | 4.0 | .58 | 4.00 | 4.00 | 4.0 | 0.00 | 4.0 | 4.0 | 4.0 | 0.0 | 4.00 | 4.00 | 4.0 | 0.00 | 3.89 | 3.94 | 4.0 | .32 | 3.77 | 3.92 | 4.0 | .73 | 3.88 | 3.93 | 4.0 | .35 |
| 5 | 3.37 | 3.88 | 4.0 | 1.25 | 4.00 | 4.00 | 4.0 | 0.00 | 3.30 | 3.88 | 4.0 | 1.49 | 3.00 | 3.00 | 2.0 | 1.00 | 2.50 | 3.00 | 4.0 | 1.92 | 4.0 | 4.0 | 4.0 | 0.0 | 3.20 | 3.50 | 4.0 | 1.79 | 3.55 | 3.92 | 4.0 | 1.24 | 3.26 | 3.54 | 4.0 | 1.10 | 3.67 | 3.75 | 4.0 | .52 |
| 6 | 2.48 | 2.87 | 4.0 | 1.55 | 1.75 | .50 | 0.0 | 2.06 | 2.83 | 3.50 | 4.0 | 1.40 | 3.00 | 3.25 | 4.0 | 1.73 | 3.00 | 3.00 | 2.0 | 1.16 | 4.0 | 4.0 | 4.0 | 0.0 | 3.20 | 3.50 | 4.0 | 1.79 | 3.10 | 3.54 | 4.0 | 1.12 | 2.59 | 3.00 | 0.0 | 1.67 | 2.25 | 2.17 | 2.0 | 1.39 |
| 7 | 2.88 | 3.27 | 4.0 | 1.41 | 1.25 | 1.00 | 1.0 | 1.26 | 3.33 | 3.64 | 4.0 | .09 | 4.00 | 4.00 | 4.0 | 0.00 | 3.00 | 3.33 | 4.0 | 2.00 | 3.0 | 3.0 | 3.0 | 0.0 | 4.00 | 4.00 | 4.0 | 0.00 | 3.17 | 3.59 | 4.0 | 1.07 | 2.23 | 2.56 | 0.0 | 1.59 | 2.30 | 3.50 | 4.0 | 2.00 |
| 8 | 1.94 | 2.00 | 2.0 | 1.38 | 1.75 | 1.50 | 1.0 | 1.50 | 2.00 | 2.00 | 2.0 | 1.25 | 3.00 | 3.00 | 2.0 | 1.00 | 2.00 | 2.00 | 2.0 | 1.63 | 2.0 | 2.0 | 2.0 | 0.0 | 2.40 | 2.75 | 1.0 | 1.34 | 2.07 | 2.00 | 4.0 | 1.51 | 1.46 | 1.57 | 0.0 | 1.36 | 2.13 | 2.50 | 3.0 | 1.46 |
| 9 | 3.07 | 3.36 | 4.0 | 1.12 | 3.00 | 3.00 | 3.0 | .82 | 3.25 | 3.50 | 4.0 | .87 | 3.33 | 3.25 | 3.0 | .58 | 2.50 | 3.00 | 3.0 | 1.73 | 2.0 | 2.0 | 2.0 | 0.0 | 3.60 | 3.75 | 4.0 | .89 | 2.86 | 3.14 | 4.0 | 1.27 | 3.11 | 3.53 | 4.0 | 1.21 | 3.50 | 3.83 | 4.0 | 1.07 |
| 10 | 2.15 | 2.17 | 2.0 | 1.35 | 1.75 | 1.50 | 0.0 | 1.71 | 1.92 | 2.17 | 3.0 | 1.38 | 2.00 | 2.00 | 0.0 | 2.00 | 2.25 | 1.50 | 4.0 | 2.06 | 3.0 | 3.0 | 3.0 | 0.0 | 1.20 | 1.25 | 1.0 | .84 | 2.62 | 3.00 | 4.0 | 1.45 | 2.03 | 2.00 | 2.0 | 1.09 | 2.13 | 2.50 | 0.0 | 1.89 |
| 11 | 3.05 | 3.39 | 4.0 | 1.14 | 3.75 | 3.83 | 4.0 | .50 | 3.58 | 3.83 | 4.0 | .79 | 3.67 | 3.75 | 4.0 | .58 | 2.75 | 2.50 | 4.0 | 1.50 | 2.0 | 2.0 | 2.0 | 0.0 | 3.20 | 3.25 | 3.0 | .84 | 2.30 | 2.41 | 3.0 | 1.33 | 3.27 | 3.61 | 4.0 | 1.11 | 3.38 | 3.50 | 4.0 | .74 |
| 12 | 3.67 | 3.92 | 4.0 | .94 | 4.00 | 4.00 | 4.0 | 0.00 | 4.00 | 4.00 | 4.0 | 0.00 | 4.00 | 4.00 | 4.0 | 0.00 | 4.00 | 4.00 | 4.0 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 4.00 | 4.00 | 4.0 | 0.00 | 3.33 | 3.79 | 4.0 | 1.24 | 3.83 | 3.97 | 4.0 | .65 | 3.50 | 3.71 | 4.0 | 1.41 |
| 13 | 3.29 | 3.63 | 4.0 | 1.03 | 2.75 | 3.50 | 4.0 | 1.89 | 3.25 | 3.50 | 4.0 | .97 | 3.67 | 3.75 | 4.0 | .58 | 3.00 | 3.33 | 4.0 | 2.00 | 0.0 | 0.0 | 0.0 | 0.0 | 4.00 | 4.00 | 4.0 | 0.00 | 3.38 | 3.59 | 4.0 | .82 | 3.17 | 3.[illegible] | 4.0 | .92 | 3.25 | 3.67 | 4.0 | 1.49 |
| 14 | 2.74 | 2.84 | 3.0 | 1.02 | 2.50 | 2.33 | 2.0 | 1.00 | 2.92 | 2.90 | 3.0 | .79 | 3.67 | 3.75 | 4.0 | .58 | 2.50 | 2.50 | 2.0 | .58 | 2.0 | 2.0 | 2.0 | 0.0 | 3.00 | 3.00 | 4.0 | .45 | 2.38 | 2.43 | 3.0 | 1.11 | 2.83 | 2.88 | 3.0 | .86 | 2.63 | 3.50 | 4.0 | 1.77 |
| 15 | 2.21 | 2.19 | 2.0 | .90 | 2.00 | 2.00 | 2.0 | 0.00 | 2.00 | 2.25 | 3.0 | 1.13 | 2.33 | 2.25 | 2.0 | .58 | 2.00 | 1.50 | 1.0 | 1.41 | 3.0 | 3.0 | 3.0 | 0.0 | 1.40 | 1.33 | 1.0 | .55 | 2.07 | 2.00 | 2.0 | .81 | 2.46 | 2.41 | 2.0 | .89 | 2.25 | 2.17 | 2.0 | .46 |
| 16 | 2.99 | 2.71 | 3.0 | 1.12 | 2.75 | 2.83 | 3.0 | .50 | 3.00 | 3.07 | 3.0 | .67 | 3.67 | 3.75 | 4.0 | .58 | 2.25 | 2.00 | 2.0 | 1.26 | 3.0 | 3.0 | 3.0 | 0.0 | 3.00 | 3.00 | 4.0 | .45 | 2.21 | 2.17 | 2.0 | 1.10 | 2.77 | 3.04 | 3.0 | 1.29 | 2.75 | 2.60 | 2.0 | 1.04 |
| 17 | 3.03 | 3.17 | 4.0 | 1.00 | 2.75 | 3.00 | 3.0 | 1.26 | 3.00 | 3.17 | 3.0 | 1.13 | 4.00 | 4.00 | 4.0 | 0.00 | 2.75 | 2.50 | 2.0 | .96 | 2.0 | 2.0 | 2.0 | 0.0 | 3.20 | 3.25 | 3.0 | .84 | 2.31 | 2.50 | 3.0 | 1.08 | 3.40 | 3.63 | 4.0 | .78 | 3.13 | 3.50 | 4.0 | .99 |
| 18 | 2.51 | 2.65 | 3.0 | 1.20 | 3.00 | 3.00 | 3.0 | .82 | 1.75 | 1.83 | 0.0 | 1.36 | 3.67 | 3.75 | 4.0 | .58 | 2.75 | 2.50 | 2.0 | .96 | 2.0 | 2.0 | 2.0 | 0.0 | 3.20 | 3.13 | 3.0 | .45 | 2.28 | 2.36 | 2.0 | 1.13 | 2.77 | 2.95 | 4.0 | 1.22 | 2.14 | 2.25 | 0.0 | 1.68 |
| 19 | 1.49 | 1.41 | 1.0 | 1.12 | 1.25 | 1.00 | 1.0 | 1.26 | 1.67 | 1.50 | 1.0 | 1.23 | 3.00 | 3.00 | 3.0 | 0.00 | .75 | .50 | 0.0 | .96 | 1.0 | 1.0 | 1.0 | 0.0 | 1.00 | 1.00 | 1.0 | 0.00 | 1.71 | 1.64 | 1.0 | 1.12 | 1.29 | 1.25 | 0.0 | 1.05 | 1.50 | 1.00 | 0.0 | 1.77 |
| 20 | 3.10 | 3.34 | 4.0 | .93 | 2.75 | 2.50 | 2.0 | .96 | 3.58 | 3.75 | 4.0 | .67 | 4.00 | 4.00 | 4.0 | 0.00 | 2.50 | 2.50 | 1.0 | 1.29 | 1.0 | 1.0 | 1.0 | 0.0 | 3.40 | 3.33 | 3.0 | .55 | 2.93 | 3.08 | 3.0 | 1.05 | 3.37 | 3.46 | 4.0 | .69 | 3.25 | 3.25 | 3.0 | .71 |
| 21 | 2.48 | 2.52 | 4.0 | 1.34 | 1.50 | 1.67 | 2.0 | 1.00 | 2.75 | 2.75 | 2.0 | .97 | 3.67 | 3.75 | 4.0 | .58 | 2.50 | 3.00 | 4.0 | 1.92 | 2.0 | 2.0 | 2.0 | 0.0 | 2.40 | 2.25 | 2.0 | .89 | 3.59 | 3.78 | 4.0 | .68 | 3.54 | 3.69 | 2.0 | 1.22 | 2.00 | 2.00 | 0.0 | 1.60 |
| 22 | 3.31 | 3.46 | 4.0 | .86 | 3.50 | 3.50 | 3.0 | .58 | 3.58 | 3.64 | 4.0 | .52 | 3.67 | 3.75 | 4.0 | .58 | 3.25 | 3.17 | 3.0 | .50 | 3.0 | 3.0 | 3.0 | 0.0 | 3.60 | 3.67 | 4.0 | .55 | 3.11 | 3.32 | 4.0 | 1.10 | 3.49 | 3.50 | 4.0 | .61 | 3.50 | 3.70 | 4.0 | .76 |
| 23 | 3.52 | 3.75 | 4.0 | .83 | 2.50 | 2.50 | 1.0 | 1.29 | 3.50 | 3.80 | 4.0 | 1.24 | 3.67 | 3.75 | 4.0 | .58 | 2.75 | 3.50 | 4.0 | 1.89 | 1.0 | 1.0 | 1.0 | 0.0 | 3.60 | 3.67 | 4.0 | .55 | 3.93 | 3.96 | 4.0 | .26 | 3.51 | 3.63 | 4.0 | .61 | 3.13 | 3.17 | 3.0 | .84 |
| 24 | 2.40 | 2.30 | 2.0 | 1.15 | 2.00 | 2.00 | 2.0 | .82 | 1.83 | 1.83 | 1.0 | 1.27 | 3.67 | 3.75 | 4.0 | .58 | 1.75 | 1.50 | 3.0 | 1.50 | 0.0 | 0.0 | 0.0 | 0.0 | 2.60 | 2.33 | 2.0 | .89 | 2.45 | 2.32 | 2.0 | .87 | 2.77 | 2.95 | 4.0 | 1.19 | 2.88 | 3.50 | 4.0 | 1.36 |
| 25 | 3.19 | 3.54 | 4.0 | 1.01 | 2.00 | 2.00 | 2.0 | .82 | 3.08 | 3.50 | 4.0 | 1.17 | 3.67 | 3.75 | 4.0 | .58 | 3.75 | 3.83 | 4.0 | .50 | 1.0 | 1.0 | 1.0 | 0.0 | 3.20 | 3.50 | 4.0 | 1.79 | 3.76 | 3.90 | 4.0 | .58 | 3.09 | 3.22 | 4.0 | .92 | 2.88 | 3.00 | 3.0 | .99 |
| 26 | 3.33 | 3.49 | 4.0 | .77 | 3.50 | 3.50 | 3.0 | .58 | 2.92 | 3.00 | 3.0 | 1.00 | 3.67 | 3.75 | 4.0 | .58 | 4.00 | 4.00 | 4.0 | 0.00 | 2.0 | 2.0 | 2.0 | 0.0 | 3.00 | 3.00 | 4.0 | .45 | 3.40 | 3.69 | 4.0 | .74 | 3.70 | 3.91 | 4.0 | .81 | 3.38 | 3.50 | 4.0 | .74 |
| 27 | 2.32 | 2.39 | 4.0 | 1.38 | 2.25 | 2.50 | 0.0 | 1.71 | 1.50 | 1.25 | 1.0 | 1.31 | 2.33 | 2.00 | 1.0 | 1.51 | 4.00 | 3.33 | 4.0 | 2.00 | 0.0 | 0.0 | 0.0 | 0.0 | 2.00 | 2.00 | 1.0 | 1.16 | 3.40 | 3.67 | 4.0 | .96 | 1.71 | 1.88 | 2.0 | 1.07 | 1.88 | 1.58 | 0.0 | 1.64 |
| 28 | 1.10 | .95 | 0.0 | 1.23 | 2.00 | 2.00 | 0.0 | 2.00 | 1.00 | .25 | 0.0 | 1.54 | .67 | .75 | 1.0 | .58 | 1.00 | .67 | 0.0 | 2.00 | 1.0 | 1.0 | 1.0 | 0.0 | .40 | .33 | 0.0 | .55 | 1.43 | 1.43 | 2.0 | 1.03 | .97 | .57 | 0.0 | 1.18 | 1.00 | 1.00 | 0.0 | 1.00 |
| 29 | 3.60 | 3.84 | 4.0 | .86 | 3.00 | 3.50 | 4.0 | 1.41 | 3.50 | 3.83 | 4.0 | 1.17 | 4.00 | 4.00 | 4.0 | 0.00 | 3.25 | 3.50 | 4.0 | .96 | 4.0 | 4.0 | 4.0 | 0.0 | 4.00 | 4.00 | 4.0 | 0.00 | 3.00 | 3.55 | 4.0 | 1.27 | 3.83 | 3.90 | 4.0 | .38 | 3.75 | 3.83 | 4.0 | .46 |
| 30 | 2.98 | 3.18 | 4.0 | 1.07 | 2.75 | 2.50 | 2.0 | .96 | 3.17 | 3.50 | 4.0 | 1.12 | 3.00 | 3.00 | 2.0 | 1.00 | 1.75 | 3.83 | 4.0 | .50 | 0.0 | 0.0 | 0.0 | 0.0 | 2.20 | 2.00 | 1.0 | 1.64 | 3.52 | 3.74 | 4.0 | .79 | 2.69 | 2.77 | 3.0 | 1.05 | 3.13 | 3.50 | 4.0 | 1.13 |
| 31 | 3.47 | 3.64 | 4.0 | .76 | 2.25 | 2.00 | 2.0 | 1.26 | 3.50 | 3.64 | 4.0 | .67 | 3.67 | 3.75 | 4.0 | .58 | 2.75 | 3.50 | 4.0 | 1.89 | 1.0 | 1.0 | 1.0 | 0.0 | 3.60 | 3.67 | 4.0 | .55 | 3.83 | 3.90 | 4.0 | .38 | 3.37 | 3.36 | 3.0 | .60 | 3.50 | 3.70 | 4.0 | .76 |
| 32 | 2.50 | 2.49 | 4.0 | 1.21 | 2.50 | 2.50 | 1.0 | 1.29 | 2.58 | 2.33 | 2.0 | 1.00 | 2.67 | 2.50 | 2.0 | 1.16 | 2.25 | 2.00 | 2.0 | 1.26 | 4.0 | 4.0 | 4.0 | 0.0 | 3.20 | 3.67 | 4.0 | 1.30 | 1.90 | 1.75 | 2.0 | 1.24 | 3.00 | 3.31 | 4.0 | 1.14 | 3.38 | 3.50 | 4.0 | .74 |
| 33 | 2.27 | 2.33 | 4.0 | 1.55 | 1.00 | 1.00 | 0.0 | 1.00 | 2.83 | 3.00 | 3.0 | 1.12 | .67 | .50 | 0.0 | 1.16 | 1.00 | .67 | 0.0 | 2.00 | 4.0 | 4.0 | 4.0 | 0.0 | 2.40 | 2.50 | 2.0 | 1.67 | 2.27 | 2.33 | 4.0 | 1.71 | 2.32 | 2.33 | 4.0 | 1.57 | 2.75 | 2.50 | 2.0 | .89 |
| 34 | 2.54 | 2.79 | 3.0 | 1.20 | 2.75 | 2.50 | 2.0 | .96 | 2.42 | 2.75 | 3.0 | 1.44 | 2.00 | 2.00 | 1.0 | 1.00 | 1.25 | .50 | 0.0 | 1.89 | 4.0 | 4.0 | 4.0 | 0.0 | 2.40 | 2.63 | 3.0 | 1.34 | 1.00 | 2.00 | 2.0 | 1.11 | 2.94 | 3.23 | 4.0 | 1.21 | 3.00 | 3.00 | 3.0 | .76 |
| 35 | 2.59 | 2.88 | 4.0 | 1.33 | 2.25 | 1.50 | 1.0 | 1.50 | 2.83 | 3.00 | 3.0 | 1.15 | 2.67 | 2.50 | 2.0 | 1.16 | 3.50 | 3.67 | 4.0 | 1.00 | 0.0 | 0.0 | 0.0 | 0.0 | .40 | .33 | 0.0 | .55 | 3.72 | 3.90 | 4.0 | .65 | 1.91 | 2.00 | 3.0 | 1.25 | 2.38 | 2.50 | 3.0 | 1.06 |
| 36 | 2.78 | 3.30 | 4.0 | 1.39 | 3.67 | 3.75 | 4.0 | .58 | 2.92 | 3.17 | 4.0 | 1.24 | 4.00 | 4.00 | 4.0 | 0.00 | 1.50 | 1.67 | 2.0 | 1.00 | 1.0 | 1.0 | 1.0 | 0.0 | 2.00 | 1.25 | 1.0 | 1.07 | 1.70 | 1.75 | 2.0 | 1.15 | 3.31 | 3.71 | 4.0 | 1.13 | 3.63 | 3.79 | 4.0 | 1.06 |
| 37 | 2.81 | 2.94 | 4.0 | 1.09 | 3.50 | 3.50 | 3.0 | .58 | 2.75 | 2.75 | 2.0 | .97 | 3.67 | 3.75 | 4.0 | .58 | 2.50 | 2.50 | 2.0 | .58 | 2.0 | 2.0 | 2.0 | 0.0 | 3.20 | 3.50 | 4.0 | 1.79 | 1.78 | 1.79 | 2.0 | 1.04 | 3.23 | 3.36 | 4.0 | .81 | 3.00 | 3.17 | 3.0 | 1.07 |
| 38 | 3.02 | 3.22 | 4.0 | 1.04 | 3.25 | 3.50 | 4.0 | .96 | 3.25 | 3.50 | 4.0 | .97 | 4.00 | 4.00 | 4.0 | 0.00 | 2.25 | 2.50 | 3.0 | .96 | 3.0 | 3.0 | 3.0 | 0.0 | 3.00 | 3.00 | 3.0 | 1.00 | 2.30 | 2.42 | 1.0 | 1.24 | 3.34 | 3.46 | 4.0 | .73 | 3.50 | 3.70 | 4.0 | .76 |
| 39 | 2.45 | 2.63 | 3.0 | 1.20 | 2.00 | 2.50 | 3.0 | 1.41 | 2.42 | 2.50 | 3.0 | .90 | 3.67 | 3.75 | 4.0 | .58 | 2.50 | 2.50 | 1.0 | 1.29 | 2.0 | 2.0 | 2.0 | 0.0 | 3.00 | 3.67 | 4.0 | 1.71 | 1.48 | 1.43 | 1.0 | 1.12 | 2.80 | 2.89 | 3.0 | .99 | 3.25 | 3.50 | 4.0 | .89 |
| 40 | 2.70 | 2.91 | 3.0 | 1.35 | 3.00 | 3.00 | 3.0 | .82 | 2.83 | 2.83 | 3.0 | .72 | 3.67 | 3.75 | 4.0 | .58 | 2.25 | 2.50 | 0.0 | 1.71 | 0.0 | 0.0 | 0.0 | 0.0 | 2.20 | 3.00 | 4.0 | 2.05 | 2.92 | 3.00 | 4.0 | 1.00 | 2.31 | 2.63 | 3.0 | 1.37 | 2.88 | 3.17 | 3.0 | 1.36 |
| 41 | 2.52 | 2.72 | 3.0 | 1.29 | 3.50 | 3.50 | 3.0 | .71 | 2.13 | 2.50 | 3.0 | 1.36 | 3.33 | 3.00 | 0.0 | 2.31 | 2.75 | 3.50 | 4.0 | 1.89 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 2.89 | 2.88 | 2.0 | .92 | 2.71 | 2.86 | 3.0 | 1.11 | 3.00 | 3.00 | 3.0 | .82 |
| 42 | 3.05 | 3.18 | 4.0 | .96 | 2.50 | 3.00 | 3.0 | 1.73 | 3.25 | 3.30 | 3.0 | .75 | 4.00 | 4.00 | 4.0 | 0.00 | 2.50 | 2.50 | 2.0 | .58 | 3.0 | 3.0 | 3.0 | 0.0 | 3.40 | 3.33 | 3.0 | .55 | 2.75 | 2.64 | 2.0 | 1.01 | 3.31 | 3.50 | 4.0 | .87 | 2.63 | 3.00 | 4.0 | 1.51 |
| 43 | 1.97 | 1.98 | 2.0 | 1.28 | 1.50 | 1.00 | 1.0 | 1.73 | 2.25 | 2.17 | 1.0 | 1.14 | 2.00 | 2.25 | 1.0 | 1.73 | 1.75 | .50 | 0.0 | 2.06 | 1.0 | 1.0 | 1.0 | 0.0 | .80 | .67 | 0.0 | 1.10 | 1.82 | 1.65 | 1.0 | 1.15 | 2.29 | 2.25 | 2.0 | 1.34 | 2.00 | 1.83 | 2.0 | 1.41 |
| 44 | 3.87 | 3.87 | 0.0 | 1.49 | 1.50 | 1.00 | 0.0 | 1.92 | 1.25 | .50 | 0.0 | 1.60 | 1.00 | 2.00 | 0.0 | 2.00 | 2.75 | 3.50 | 4.0 | 1.09 | 1.0 | 1.0 | 1.0 | 0.0 | 1.20 | 1.00 | 0.0 | 1.64 | 2.36 | 2.50 | 3.0 | 1.10 | 1.80 | 1.29 | 0.0 | 1.69 | 1.00 | .50 | 0.0 | 1.20 |
| 45 | 2.92 | 3.13 | 4.0 | 1.18 | 2.00 | 2.00 | 0.0 | 2.31 | 3.25 | 3.38 | 3.0 | .75 | 3.00 | 3.00 | 2.0 | 1.00 | 2.75 | 3.50 | 4.0 | 1.09 | 1.0 | 1.0 | 1.0 | 0.0 | 2.40 | 2.00 | 1.0 | 1.52 | 2.46 | 2.58 | 3.0 | .92 | 3.26 | 3.53 | 4.0 | .95 | 2.00 | 3.63 | 4.0 | 1.29 |
| 46 | 2.59 | 2.57 | 2.0 | 1.06 | 2.25 | 1.50 | 1.0 | 1.50 | 2.92 | 3.00 | 3.0 | 1.08 | 3.00 | 3.00 | 2.0 | 1.00 | 1.50 | 1.00 | 0.0 | 1.92 | 1.0 | 2.0 | 2.0 | 0.0 | 3.20 | 3.33 | 4.0 | 1.10 | 2.18 | 2.07 | 2.0 | .91 | 2.91 | 2.92 | 3.0 | .85 | 2.00 | 2.00 | 1.0 | 1.11 |
| 47 | 3.03 | 3.18 | 4.0 | .98 | 3.50 | 3.67 | 4.0 | 1.00 | 3.17 | 3.33 | 3.0 | 1.12 | 3.33 | 3.50 | 4.0 | 1.16 | 3.75 | 3.83 | 4.0 | .50 | 2.0 | 2.0 | 2.0 | 0.0 | 2.00 | 1.75 | 2.0 | 1.23 | 3.32 | 3.35 | 3.0 | .67 | 2.74 | 2.79 | 3.0 | .98 | 3.13 | 3.70 | 4.0 | 1.36 |
| 48 | 2.90 | 3.17 | 4.0 | 1.18 | 2.50 | 2.33 | 2.0 | 1.00 | 2.55 | 3.13 | 3.0 | 1.70 | 2.00 | 2.00 | 0.0 | 2.00 | 3.75 | 3.83 | 4.0 | .50 | 2.0 | 2.0 | 2.0 | 0.0 | 2.00 | 1.75 | 2.0 | 1.23 | 3.46 | 3.68 | 4.0 | .88 | 2.74 | 2.82 | 3.0 | 1.04 | 2.88 | 3.50 | 4.0 | 1.36 |
| 49 | 2.84 | 3.04 | 3.0 | 1.13 | 3.00 | 3.50 | 4.0 | 1.41 | 2.92 | 3.00 | 3.0 | 1.00 | 3.33 | 3.5 | 4.0 | 1.16 | .50 | 3.00 | 3.0 | 1.73 | 3.0 | 3.0 | 3.0 | 0.0 | 2.40 | 2.00 | 1.0 | 1.52 | 2.89 | 3.00 | 3.0 | .99 | 2.63 | 2.85 | 3.0 | 1.19 | 2.88 | 3.40 | 4.0 | 1.36 |
| 50 | 2.78 | 2.94 | 3.0 | 1.08 | 2.00 | 1.50 | 0.0 | 1.83 | 3.00 | 3.07 | 3.0 | .85 | 3.33 | 3.5 | 4.0 | 1.16 | 2.50 | 3.00 | 3.0 | 1.73 | 2.0 | 2.0 | 2.0 | 0.0 | 2.60 | 3.00 | 4.0 | 1.52 | 2.05 | 2.96 | 3.0 | .97 | 2.63 | 2.71 | 3.0 | 1.06 | 2.50 | 2.50 | 1.0 | 1.20 |
| 51 | 2.69 | 2.77 | 3.0 | 1.07 | 2.25 | 2.17 | 2.0 | .50 | 2.33 | 2.50 | 1.0 | 1.37 | 3.67 | 3.75 | 4.0 | .58 | 3.00 | 3.00 | 3.0 | .82 | 3.0 | 3.0 | 3.0 | 0.0 | 3.00 | 3.00 | 4.0 | .45 | 3.22 | 3.44 | 4.0 | .93 | 2.74 | 2.88 | 2.0 | .94 | 2.25 | 2.75 | 3.0 | 1.39 |
| 52 | 3.06 | 3.14 | 3.0 | .88 | 2.75 | 2.83 | 3.0 | .50 | 3.25 | 3.30 | 3.0 | .75 | 3.00 | 3.0 | 2.0 | 1.00 | 3.75 | 3.83 | 4.0 | .50 | 2.0 | 2.0 | 2.0 | 0.0 | 3.60 | 3.75 | 4.0 | .89 | 3.25 | 3.50 | 4.0 | 1.01 | 2.69 | 2.72 | 3.0 | .90 | 3.25 | 3.25 | 3.0 | .71 |
| 53 | 3.05 | 3.21 | 4.0 | 1.00 | 3.00 | 3.00 | 3.0 | .82 | 3.42 | 3.50 | 4.0 | .67 | 3.33 | 3.5 | 4.0 | 1.16 | 2.75 | 2.50 | 4.0 | 1.50 | 1.0 | 1.0 | 1.0 | 0.0 | 3.20 | 3.50 | 4.0 | 1.79 | 2.38 | 2.63 | 3.0 | 1.03 | 3.14 | 3.18 | 3.0 | .77 | 3.83 | 3.50 | 4.0 | 1.33 |

Note. $\bar{X}$ = mean; Me = median; Mo = mode; SD = standard deviation

# APPENDIX C

## ANALYSIS OF RESPONSES ON PROBLEMS

TABLE 17

ANALYSIS ON PERCEPTIONS OF PROBLEMS BY RESPONDENTS BY TOTAL GROUP AND SCHOOL DISTRICT

| Problems | Total | | | | Marion | | | | Pinellas | | | | St. Johns | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD |
| 1 | 1.50 | 1.43 | 0.0 | 1.31 | .45 | .17 | 0.0 | .89 | 1.46 | 1.19 | 0.0 | 1.42 | 1.88 | 1.94 | 2.0 | 1.17 |
| 2 | .34 | .15 | 0.0 | .75 | .10 | .06 | 0.0 | .31 | .39 | .19 | 0.0 | .85 | .40 | .16 | 0.0 | .84 |
| 3 | 1.14 | .86 | 0.0 | 1.24 | .50 | .27 | 0.0 | .76 | 1.24 | .94 | 0.0 | 1.33 | 1.31 | 1.09 | 0.0 | 1.26 |
| 4 | .97 | .48 | 0.0 | 1.20 | .45 | .21 | 0.0 | .76 | 1.21 | .75 | 0.0 | 1.37 | 1.03 | .65 | 0.0 | 1.19 |
| 5 | .80 | .30 | 0.0 | 1.26 | .30 | .17 | 0.0 | .73 | 1.00 | .57 | 0.0 | 1.25 | .88 | .31 | 0.0 | 1.37 |
| 6 | 1.41 | .90 | 0.0 | 1.52 | .35 | .17 | 0.0 | .75 | 1.93 | 2.50 | 0.0 | 1.65 | 1.54 | 1.14 | 0.0 | 1.49 |
| 7 | 1.05 | .30 | 0.0 | 1.56 | 0.0 | 0.0 | 0.0 | 0.00 | 1.62 | 1.13 | 0.0 | 1.68 | 1.12 | .34 | 0.0 | 1.60 |
| 8 | .98 | .35 | 0.0 | 1.41 | .55 | .13 | 0.0 | 1.23 | .89 | .32 | 0.0 | 1.34 | 1.16 | .48 | 0.0 | 1.49 |
| 9 | 1.56 | 1.48 | 0.0 | 1.38 | 1.25 | 1.17 | 0.0 | 1.21 | 2.06 | 1.83 | 4.0 | 1.51 | 1.37 | 1.31 | 0.0 | 1.30 |
| 10 | .85 | .46 | 0.0 | 1.06 | .35 | .17 | 0.0 | .75 | 1.00 | .50 | 0.0 | 1.16 | .93 | .67 | 0.0 | 1.07 |
| 11 | .59 | .22 | 0.0 | 1.05 | 1.17 | .50 | 0.0 | 1.51 | .59 | .23 | 0.0 | 1.02 | .40 | .16 | 0.0 | .82 |
| 12 | .65 | .23 | 0.0 | 1.10 | .65 | .15 | 0.0 | 1.32 | 1.14 | .80 | 0.0 | 1.27 | .37 | .13 | 0.0 | .81 |
| 13 | 1.37 | .93 | 0.0 | 1.49 | .80 | .41 | 0.0 | 1.01 | 1.25 | .43 | 0.0 | 1.56 | 1.67 | 1.35 | 0.0 | 1.56 |
| 14 | 1.17 | 1.00 | 0.0 | 1.16 | .90 | .50 | 0.0 | 1.07 | 1.12 | 1.07 | 0.0 | 1.04 | 1.29 | 1.11 | 0.0 | 1.25 |
| 15 | 1.19 | .47 | 0.0 | 1.50 | .55 | .27 | 0.0 | 1.00 | 1.57 | .83 | 0.0 | 1.70 | 1.22 | .56 | 0.0 | 1.49 |
| 16 | 2.28 | 2.65 | 4.0 | 1.52 | 1.70 | 1.30 | 0.0 | 1.53 | 1.88 | 2.00 | 0.0 | 1.57 | 2.71 | 3.03 | 4.0 | 1.37 |
| 17 | 2.56 | 2.96 | 4.0 | 1.48 | .95 | .79 | 0.0 | 1.00 | 2.59 | 3.17 | 4.0 | 1.58 | 3.09 | 3.47 | 4.0 | 1.15 |
| 18 | 1.76 | 1.75 | 0.0 | 1.58 | .26 | .13 | 0.0 | .56 | 1.74 | 1.86 | 0.0 | 1.40 | 2.30 | 2.67 | 4.0 | 1.57 |
| 19 | 1.51 | 1.09 | 0.0 | 1.55 | .90 | .33 | 0.0 | 1.33 | 1.08 | .38 | 0.0 | 1.45 | 1.96 | 2.20 | 0.0 | 1.57 |
| 20 | 1.22 | .78 | 0.0 | 1.36 | .40 | .13 | 0.0 | 1.00 | 1.77 | 2.00 | 0.0 | 1.57 | 1.22 | 1.04 | 0.0 | 1.22 |
| 21 | 1.16 | .95 | 0.0 | 1.14 | .65 | .33 | 0.0 | .99 | 1.15 | .82 | 0.0 | 1.28 | 1.37 | 1.33 | 1.0 | 1.06 |
| 22 | 1.09 | .85 | 0.0 | 1.14 | 1.26 | 1.00 | 0.0 | 1.37 | 1.19 | 1.17 | 0.0 | 1.09 | .96 | .64 | 0.0 | 1.08 |
| 23 | 1.21 | 1.14 | 0.0 | 1.13 | 1.21 | 1.13 | 0.0 | 1.18 | 1.19 | 1.33 | 2.0 | 1.00 | 1.23 | 1.05 | 0.0 | 1.20 |
| 24 | .95 | .54 | 0.0 | 1.16 | .40 | .21 | 0.0 | .75 | .88 | .35 | 0.0 | 1.27 | 1.17 | 1.00 | 0.0 | 1.16 |
| 25 | 1.68 | 1.68 | 2.0 | 1.33 | 1.11 | .83 | 0.0 | 1.18 | 1.59 | 1.33 | 0.0 | 1.52 | 1.90 | 1.91 | 2.0 | 1.21 |
| 26 | 1.31 | 1.02 | 0.0 | 1.33 | .60 | .33 | 0.0 | .94 | 1.38 | 1.0 | 0.0 | 1.48 | 1.51 | 1.34 | 0.0 | 1.29 |
| 27 | 1.67 | 1.38 | 0.0 | 1.54 | .25 | .13 | 0.0 | .55 | 1.50 | 1.10 | 0.0 | 1.54 | 2.25 | 2.21 | 4.0 | 1.45 |
| 28 | 1.13 | .55 | 0.0 | 1.36 | .05 | .03 | 0.0 | .23 | 1.12 | .72 | 0.0 | 1.34 | 1.48 | 1.25 | 0.0 | 1.41 |
| 29 | 1.71 | 1.48 | 0.0 | 1.53 | .45 | .21 | 0.0 | .83 | 1.59 | 1.33 | 0.0 | 1.50 | 2.20 | 2.15 | 4.0 | 1.48 |
| 30 | 1.69 | 1.50 | 1.0 | 1.24 | 1.05 | .88 | 1.0 | 1.05 | 1.38 | 1.2 | 1.0 | 1.13 | 2.09 | 2.00 | 1.0 | 1.23 |
| 31 | 1.27 | 1.02 | 0.0 | 1.29 | 1.00 | .44 | 0.0 | 1.31 | 1.24 | 1.11 | 0.0 | 1.15 | 1.35 | 1.08 | 0.0 | 1.38 |
| 32 | 1.01 | .53 | 0.0 | 1.24 | 1.27 | 1.0 | 0.0 | 1.34 | .71 | .41 | 0.0 | .97 | 1.12 | .57 | 0.0 | 1.35 |
| 33 | .96 | .75 | 0.0 | 1.07 | 1.33 | 1.25 | 0.0 | 1.35 | .67 | .58 | 0.0 | .71 | 1.02 | .81 | 0.0 | 1.13 |
| 34 | 1.03 | .71 | 0.0 | 1.16 | 1.05 | .75 | 0.0 | 1.15 | .90 | .38 | 0.0 | 1.24 | 1.09 | .87 | 0.0 | 1.14 |
| 35 | 1.37 | 1.13 | 0.0 | 1.34 | .80 | .50 | 0.0 | 1.06 | .94 | .40 | 0.0 | 1.30 | 1.81 | 1.66 | 1.0 | 1.32 |
| 36 | 1.91 | 1.79 | 1.0 | 1.46 | .95 | .50 | 0.0 | 1.19 | 1.71 | 1.36 | 0.0 | 1.53 | 2.36 | 2.31 | 4.0 | 1.32 |
| 37 | 1.80 | 1.76 | 3.0 | 1.35 | 1.42 | 1.20 | 0.0 | 1.35 | 1.38 | 1.10 | 0.0 | 1.39 | 2.15 | 2.35 | 3.0 | 1.24 |
| 38 | 1.68 | 1.33 | 0.0 | 1.57 | .35 | .21 | 0.0 | .59 | 1.71 | 1.50 | 0.0 | 1.59 | 2.12 | 2.19 | 4.0 | 1.56 |
| 39 | 1.11 | .70 | 0.0 | 1.27 | 1.00 | .67 | 0.0 | 1.21 | .97 | .63 | 0.0 | 1.05 | 1.22 | .73 | 0.0 | 1.40 |
| 40 | 1.18 | .87 | 0.0 | 1.26 | .80 | .50 | 0.0 | 1.01 | 1.00 | .70 | 0.0 | 1.16 | 1.41 | 1.13 | 0.0 | 1.37 |
| 41 | 1.01 | .64 | 0.0 | 1.20 | .40 | .27 | 0.0 | .60 | 1.15 | .75 | 0.0 | 1.33 | 1.14 | .86 | 0.0 | 1.24 |
| 42 | 2.03 | 2.23 | 0.0 | 1.62 | .68 | .36 | 0.0 | 1.06 | 2.13 | .70 | 3.0 | 1.61 | 2.41 | 2.77 | 4.0 | 1.56 |
| 43 | 1.81 | 1.76 | 0.0 | 1.42 | .84 | .60 | 0.0 | .96 | 1.79 | 1.67 | 0.0 | 1.53 | 2.14 | 2.32 | 3.0 | 1.34 |
| 44 | 1.94 | 1.94 | 0.0 | 1.46 | .77 | .35 | 0.0 | 1.20 | 1.63 | 1.50 | 3.0 | 1.35 | 2.55 | 2.56 | 4.0 | 1.30 |
| 45 | 1.18 | .86 | 0.0 | 1.28 | .85 | .41 | 0.0 | 1.18 | 1.18 | .78 | 0.0 | 1.36 | 1.29 | 1.07 | 0.0 | 1.26 |
| 46 | .91 | .57 | 0.0 | 1.11 | .75 | .33 | 0.0 | 1.12 | .79 | .42 | 0.0 | 1.08 | 1.03 | .78 | 0.0 | 1.13 |
| 47 | 1.19 | .63 | 0.0 | 1.42 | .61 | .25 | 0.0 | 1.04 | 1.37 | 1.00 | 0.0 | 1.45 | 1.29 | .75 | 0.0 | 1.49 |
| 48 | 1.12 | .66 | 0.0 | 1.32 | .68 | .29 | 0.0 | 1.11 | 1.26 | .92 | 0.0 | 1.37 | 1.19 | .79 | 0.0 | 1.34 |
| 49 | 1.72 | 1.56 | 0.0 | 1.53 | 1.55 | 1.36 | 1.0 | 1.23 | .44 | .18 | 0.0 | .93 | 2.53 | 2.81 | 4.0 | 1.38 |
| 50 | 1.04 | .48 | 0.0 | 1.38 | .45 | .21 | 0.0 | .95 | .62 | .35 | 0.0 | 1.02 | 1.50 | 1.10 | 0.0 | 1.54 |

Note. $\bar{X}$ = mean; Me = median; Mo = mode; SD = standard deviation.

TABLE 18

NUMBER AND PERCENTAGE OF PROBLEMS BY CATEGORY, CRITICALITY, AND SCHOOL DISTRICT

| Category | Level of Criticality* | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % |
| Policies and Procedures | None-Slight | 17 | 85 | 3 | 15 | 5 | 25 |
| | Slight-Moderate | 3 | 15 | 15 | 75 | 12 | 60 |
| | Moderate-Significant | -- | -- | 2 | 10 | 2 | 10 |
| | Significant-Critical | -- | -- | -- | -- | 1 | 5 |
| Curriculum and Instruction | None-Slight | 6 | 43 | 4 | 29 | 1 | 7 |
| | Slight-Moderate | 8 | 57 | 10 | 71 | 10 | 71 |
| | Moderate-Significant | -- | -- | -- | -- | 3 | 22 |
| | Significant-Critical | -- | -- | -- | -- | -- | -- |
| Staffing and Staff Development | None-Slight | 6 | 75 | 2 | 25 | -- | -- |
| | Slight-Moderate | 2 | 25 | 5 | 62 | 4 | 50 |
| | Moderate-Significant | -- | -- | 1 | 13 | 4 | 50 |
| | Significant-Critical | -- | -- | -- | -- | -- | -- |
| Facilities Equipment Materials | None-Slight | 7 | 87 | 3 | 38 | -- | -- |
| | Slight-Moderate | 1 | 13 | 5 | 62 | 5 | 62 |
| | Moderate-Significant | -- | -- | -- | -- | 3 | 38 |
| | Significant-Critical | -- | -- | -- | -- | -- | -- |

*Means Criticality Levels

0.00 - 0.99 None-Slight
1.00 - 1.99 Slight-Moderate
2.00 - 2.99 Moderate-Significant
3.00 - 4.00 Significant-Critical

# = Number
% = Percentage

TABLE 19

PERCENTAGE AND OPTION NUMBERS OF PROBLEMS WITH GREATEST AGREEMENT BY TOTAL GROUP AND SCHOOL DISTRICT*

| Problems | Total Group | | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|---|
| Item # | Percent | Option # | Percent | Option # | Percent | Option # | Percent | Option # |
| 1 | — | — | 85.0 | 0, 1 | — | — | — | — |
| 2 | 91.9 | 0, 1 | 100.0 | 0, 1 | 90.9 | 0, 1 | 89.7 | 0, 1 |
| 3 | — | — | 85.0 | 0, 1 | — | — | — | — |
| 4 | — | — | 85.0 | 0, 1 | — | — | — | — |
| 5 | 77.6 | 0, 1 | 85.00 | 0, 1 | 72.4 | 0, 1 | 77.6 | 0, 1 |
| 6 | — | — | 95.0 | 0, 1 | — | — | — | — |
| 7 | 71.7 | 0, 1 | 100.0 | 0 | — | — | 72.2 | 0, 1 |
| 8 | 73.3 | 0, 1 | 85.0 | 0, 1 | 75.0 | 0, 1 | — | — |
| 9 | — | — | — | — | — | — | — | — |
| 10 | 72.6 | 0, 1 | 95.0 | 0, 1 | — | — | 71.2 | 0, 1 |
| 11 | 83.7 | 0, 1 | 72.2 | 0, 1 | 79.3 | 0, 1 | 89.5 | 0, 1 |
| 12 | 78.8 | 0, 1 | 82.4 | 0, 1 | — | — | 86.8 | 0, 1 |
| 13 | — | — | 70.0 | 0, 1 | — | — | — | — |
| 14 | — | — | 70.0 | 0, 1 | — | — | — | — |
| 15 | — | — | 90.00 | 0, 1 | — | — | — | — |
| 16 | — | — | — | — | — | — | — | — |
| 17 | — | — | 75.0 | 0, 1 | — | — | 74.5 | 3, 4 |
| 18 | — | — | 94.7 | 0, 1 | — | — | — | — |
| 19 | — | — | 70.0 | 0, 1 | — | — | — | — |
| 20 | — | — | 90.0 | 0, 1 | — | — | — | — |
| 21 | — | — | 85.0 | 0, 1 | 72.7 | 0, 1 | — | — |
| 22 | — | — | — | — | — | — | — | — |
| 23 | — | — | — | — | — | — | — | — |
| 24 | 72.3 | 0, 1 | 95.0 | 0, 1 | 73.5 | 0, 1 | — | — |
| 25 | — | — | — | — | — | — | — | — |
| 26 | — | — | 90.0 | 0, 1 | — | — | — | — |
| 27 | — | — | 95.0 | 0, 1 | — | — | — | — |
| 28 | — | — | 100.0 | 0, 1 | 70.6 | 0, 1 | — | — |
| 29 | — | — | 90.0 | 0, 1 | — | — | — | — |
| 30 | — | — | 75.0 | 0, 1 | — | — | — | — |
| 31 | — | — | — | — | — | — | — | — |
| 32 | — | — | — | — | 80.6 | 0, 1 | — | — |
| 33 | 75.5 | 0, 1 | — | — | 86.7 | 0, 1 | 75.5 | 0, 1 |
| 34 | 70.4 | 0, 1 | — | — | 73.3 | 0, 1 | 70.7 | 0, 1 |
| 35 | — | — | 80.0 | 0, 1 | 70.6 | 0, 1 | — | — |
| 36 | — | — | 70.0 | 0, 1 | — | — | — | — |
| 37 | — | — | — | — | — | — | — | — |
| 38 | — | — | 95.0 | 0, 1 | — | — | — | — |
| 39 | — | — | 75.0 | 0, 1 | — | — | — | — |
| 40 | — | — | 80.0 | 0, 1 | 73.5 | 0, 1 | — | — |
| 41 | 71.4 | 0, 1 | 95.0 | 0, 1 | — | — | — | — |
| 42 | — | — | 84.2 | 0, 1 | — | — | — | — |
| 43 | — | — | 73.7 | 0, 1 | — | — | — | — |
| 44 | — | — | 82.4 | 0, 1 | — | — | — | — |
| 45 | — | — | 75.0 | 0, 1 | — | — | — | — |
| 46 | 79.9 | 0, 1 | 75.0 | 0, 1 | 78.8 | 0, 1 | 74.6 | 0, 1 |
| 47 | — | — | 83.3 | 0, 1 | — | — | — | — |
| 48 | — | — | 84.2 | 0, 1 | — | — | — | — |
| 49 | — | — | — | — | 91.2 | 0, 1 | — | — |
| 50 | 74.1 | 0, 1 | 95.0 | 0, 1 | — | — | — | — |

*Seventy percent or more of the responses from a group fall within two consecutive option numbers.

0 = Number
% = Percentage

TABLE 20

ANALYSIS OF PERCEPTIONS OF PROBLEMS BY RESPONDENTS
BY TOTAL GROUP AND POSITION

| Problems | Total | | | | Administrators | | | | Supervisors | | | | Teachers | | | | Counselors | | | | Teacher Aides | | | | Clerical Aides | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Mn | Mo | SD | $\bar{X}$ | Mn | Mo | SD | $\bar{X}$ | Mn | Mo | SD | $\bar{X}$ | Mn | Mo | SD | $\bar{X}$ | Mn | Mo | SD | $\bar{X}$ | Mn | Mo | SD | $\bar{X}$ | Mn | Mo | SD |
| 1 | 1.50 | 1.43 | 0.0 | 1.31 | 1.43 | 1.33 | 0.0 | 1.51 | 1.71 | 1.33 | 1.0 | 1.38 | 1.45 | 1.25 | 0.0 | 1.35 | 1.71 | 2.00 | 1.0 | 1.38 | 1.46 | 1.75 | 2.0 | 1.84 | 2.00 | 2.00 | 2.0 | 1.00 |
| 2 | .34 | .15 | 0.0 | .75 | .29 | .20 | 0.0 | .49 | .29 | .20 | 0.0 | .48 | .28 | .13 | 0.0 | .58 | 1.29 | 1.00 | 0.0 | 1.38 | 0.00 | 0.00 | 0.0 | 0.00 | 1.33 | 1.00 | 0.0 | 2.31 |
| 3 | 1.14 | .86 | 0.0 | 1.24 | .86 | .88 | 1.0 | .69 | 1.71 | 1.67 | 2.0 | 1.25 | 1.08 | .61 | 0.0 | 1.33 | .86 | .75 | 0.0 | .90 | 1.55 | 1.63 | 2.0 | 1.84 | 1.33 | 1.50 | 2.0 | 1.16 |
| 4 | .97 | .48 | 0.0 | 1.20 | 1.43 | 1.75 | 0.0 | 1.40 | 1.57 | 1.75 | 0.0 | 1.37 | .86 | .37 | 0.0 | 1.23 | .43 | .20 | 0.0 | .79 | 1.36 | 1.38 | 1.0 | .92 | 1.00 | 1.00 | 1.0 | 1.00 |
| 5 | .80 | .30 | 0.0 | 1.26 | 1.71 | 1.75 | 0.0 | 1.50 | 2.43 | 3.00 | 3.0 | 1.72 | .69 | .26 | 0.0 | 1.15 | .17 | .18 | 0.0 | .41 | .55 | .29 | 0.0 | .93 | 0.00 | 0.00 | 0.0 | 0.00 |
| 6 | 1.41 | .98 | 0.0 | 1.52 | 2.43 | 3.00 | 4.0 | 1.81 | 3.00 | 3.63 | 4.0 | 1.41 | 1.30 | .73 | 0.0 | 1.47 | 1.00 | .38 | 0.0 | 1.53 | .91 | .67 | 0.0 | 1.04 | .50 | .50 | 0.0 | .71 |
| 7 | 1.05 | .30 | 0.0 | 1.56 | 2.29 | 2.50 | 4.0 | 1.80 | 2.86 | 3.20 | 4.0 | 1.95 | .92 | .29 | 0.0 | 1.44 | 1.00 | .38 | 0.0 | 1.53 | .27 | .15 | 0.0 | .91 | 0.00 | 0.00 | 0.0 | 0.00 |
| 8 | .98 | .35 | 0.0 | 1.41 | 1.43 | .75 | 0.0 | 1.81 | 2.43 | 2.63 | 4.0 | 1.99 | .78 | .27 | 0.0 | 1.28 | 1.57 | 1.75 | 0.0 | 1.27 | .90 | .33 | 0.0 | 1.29 | 0.00 | 0.00 | 0.0 | 0.00 |
| 9 | 1.36 | 1.48 | 0.0 | 1.38 | 1.29 | 1.25 | 0.0 | 1.11 | 1.00 | 1.00 | 1.0 | .82 | 1.46 | 1.19 | 0.0 | 1.46 | 2.00 | 2.25 | .3 | 1.16 | 2.00 | 2.33 | 3.0 | 1.18 | 3.33 | 3.25 | 3.0 | .58 |
| 10 | .85 | .46 | 0.0 | 1.06 | 1.00 | 1.00 | 1.0 | .82 | 1.43 | 1.63 | 2.0 | .79 | .80 | .37 | 0.0 | 1.12 | 1.29 | 1.25 | 0.0 | 1.13 | .46 | .19 | 0.0 | .82 | 1.00 | 1.00 | 1.0 | 1.00 |
| 11 | .59 | .22 | 0.0 | 1.05 | 1.17 | .50 | 0.0 | 1.60 | .57 | .38 | 0.0 | .79 | .51 | .19 | 0.0 | .99 | .67 | 1.50 | 3.0 | 1.51 | .20 | .11 | 0.0 | .63 | .33 | .25 | 0.0 | .58 |
| 12 | .65 | .23 | 0.0 | 1.10 | 2.20 | 2.00 | 4.0 | 1.79 | .43 | .20 | 0.0 | .79 | .61 | .21 | 0.0 | 1.04 | .83 | .25 | 0.0 | 1.33 | .25 | .14 | 0.0 | .71 | 0.00 | 0.00 | 0.0 | 0.00 |
| 13 | 1.37 | .93 | 0.0 | 1.49 | 2.14 | 2.25 | 0.0 | 1.68 | 2.83 | 3.17 | 3.0 | 1.47 | .91 | .41 | 0.0 | 1.35 | 1.43 | 1.33 | 1.0 | .98 | 2.83 | 2.50 | 4.0 | 1.33 | 3.00 | 3.00 | 2.0 | 1.41 |
| 14 | 1.17 | 1.00 | 0.0 | 1.16 | 1.71 | 2.00 | 3.0 | 1.38 | 1.86 | 2.00 | 3.0 | 1.22 | 1.15 | 1.03 | 0.0 | 1.14 | 1.00 | .75 | 0.0 | 1.16 | .91 | .67 | 0.0 | 1.04 | 0.00 | 0.00 | 0.0 | 0.00 |
| 15 | 1.19 | .47 | 0.0 | 1.50 | 1.86 | 1.25 | 0.0 | 1.77 | 3.00 | 3.63 | 4.0 | 1.53 | 1.18 | .47 | 0.0 | 1.48 | .57 | .38 | 0.0 | .79 | .27 | .11 | 0.0 | .65 | .67 | .50 | 0.0 | 1.16 |
| 16 | 2.28 | 2.65 | 4.0 | 1.52 | 2.43 | 2.08 | 3.0 | 1.40 | 3.15 | 3.25 | 4.0 | .90 | 2.00 | 2.21 | 0.0 | 1.55 | 2.14 | 2.25 | 2.0 | 1.35 | 3.46 | 3.81 | 4.0 | 1.21 | 3.33 | 3.25 | 3.0 | .58 |
| 17 | 2.56 | 2.96 | 4.0 | 1.48 | 2.14 | 2.00 | 1.0 | 1.57 | 3.86 | 3.92 | 4.0 | .38 | 2.53 | 2.93 | 4.0 | 1.59 | 2.14 | 2.25 | 0.0 | 1.68 | 2.27 | 2.67 | 3.0 | 1.50 | 3.00 | 3.00 | 3.0 | 0.00 |
| 18 | 1.76 | 1.79 | 0.0 | 1.58 | 1.86 | 1.75 | 1.0 | 1.35 | 3.29 | 3.80 | 4.0 | 1.50 | 1.78 | 1.82 | 0.0 | 1.56 | .83 | .25 | 0.0 | 1.33 | 1.25 | .50 | 0.0 | 1.58 | .67 | .50 | 0.0 | 1.16 |
| 19 | 1.51 | 1.69 | 0.0 | 1.55 | 1.14 | 1.00 | 0.0 | 1.22 | 3.17 | 3.17 | 3.0 | .75 | 1.36 | .50 | 0.0 | 1.58 | 1.14 | 1.00 | 1.0 | 1.07 | 2.29 | 2.75 | 0.0 | 1.70 | 1.50 | 1.50 | 0.0 | 2.12 |
| 20 | 1.22 | .78 | 0.0 | 1.36 | 2.14 | 2.67 | 3.0 | 1.57 | 2.57 | 2.38 | 2.0 | .79 | 1.14 | .57 | 0.0 | 1.37 | .33 | .25 | 0.0 | .52 | 1.00 | .75 | 0.0 | 1.10 | .67 | .50 | 0.0 | 1.16 |
| 21 | 1.16 | .95 | 0.0 | 1.14 | 2.00 | 2.25 | 0.0 | 1.53 | 1.83 | 2.00 | 2.0 | 1.17 | 1.01 | .00 | 0.0 | 1.08 | .71 | .38 | 0.0 | 1.11 | 1.71 | 1.88 | 2.0 | .95 | 2.00 | 2.00 | 2.0 | 0.00 |
| 22 | 1.09 | .85 | 0.0 | 1.16 | .43 | .20 | 0.0 | .78 | 1.14 | 1.25 | 2.0 | .90 | 1.17 | .97 | 0.0 | 1.16 | 1.43 | 1.60 | 2.0 | .98 | .71 | .38 | 0.0 | 1.50 | .50 | .50 | 0.0 | .71 |
| 23 | 1.21 | 1.14 | 0.0 | 1.13 | 1.00 | 1.00 | 1.0 | .58 | 1.57 | 1.75 | 0.0 | 1.27 | 1.14 | 1.04 | 0.0 | 1.09 | 1.71 | 1.80 | 2.0 | .49 | 1.00 | .20 | 0.0 | 1.73 | 2.00 | 3.00 | 2.0 | 2.00 |
| 24 | .95 | .54 | 0.0 | 1.16 | 1.00 | 1.00 | 1.0 | .82 | 1.71 | 1.88 | 2.0 | .95 | .98 | .42 | 0.0 | 1.24 | 1.43 | 1.67 | 2.0 | 1.13 | .64 | .42 | 0.0 | .81 | .33 | .25 | 0.0 | .58 |
| 25 | 1.68 | 1.68 | 2.0 | 1.33 | 1.14 | 1.00 | 0.0 | 1.22 | 2.57 | 2.88 | 2.0 | .98 | 1.70 | 1.57 | 0.0 | 1.41 | 1.57 | 1.67 | 2.0 | .98 | 1.27 | 1.25 | 0.0 | 1.19 | 2.00 | 2.00 | 2.0 | 0.00 |
| 26 | 1.31 | 1.02 | 0.0 | 1.33 | .86 | .75 | 0.0 | .98 | 2.57 | 2.40 | 2.0 | .98 | 1.24 | .85 | 0.0 | 1.38 | 1.43 | 1.25 | 0.0 | 1.27 | 1.00 | .67 | 0.0 | 1.18 | 2.00 | 2.00 | 2.0 | 1.00 |
| 27 | 1.67 | 1.38 | 0.0 | 1.54 | 1.43 | 1.25 | 0.0 | 1.27 | 3.14 | 3.40 | 4.0 | 1.46 | 1.58 | 1.19 | 0.0 | 1.57 | 1.71 | 1.75 | 0.0 | 1.50 | 1.73 | 1.67 | 0.0 | 1.49 | 1.00 | 1.00 | 1.0 | 1.00 |
| 28 | 1.13 | .55 | 0.0 | 1.36 | 1.00 | 1.00 | 1.0 | 1.00 | 3.00 | 3.25 | 4.0 | 1.16 | 1.00 | .46 | 0.0 | 1.30 | 1.14 | 1.00 | 0.0 | 1.22 | .82 | .29 | 0.0 | 1.25 | 1.33 | 1.00 | 0.0 | 2.31 |
| 29 | 1.71 | 1.48 | 0.0 | 1.53 | 1.14 | .75 | 1.0 | 1.46 | 3.00 | 3.63 | 4.0 | 1.41 | 1.60 | 1.58 | 0.0 | 1.47 | .43 | .38 | 0.0 | .54 | 2.82 | 3.25 | 4.0 | 1.40 | 1.67 | 1.00 | 1.0 | 2.08 |
| 30 | 1.69 | 1.50 | 1.0 | 1.24 | 1.71 | 1.75 | 1.0 | 1.11 | 2.43 | 2.13 | 1.0 | 1.27 | 1.59 | 1.35 | 1.0 | 1.26 | 1.86 | 2.00 | 3.0 | 1.22 | 2.00 | 2.00 | 2.0 | 1.16 | 1.00 | 1.00 | 1.0 | 1.00 |
| 31 | 1.27 | 1.02 | 0.0 | 1.29 | 1.00 | 1.75 | 1.0 | .84 | 1.86 | 1.75 | 0.0 | 1.68 | 1.22 | .96 | 0.0 | 1.29 | .67 | .75 | 1.0 | .52 | 1.33 | .75 | 0.0 | 1.50 | 1.00 | 1.00 | 1.0 | 1.00 |
| 32 | 1.01 | .93 | 0.0 | 1.24 | 1.50 | 1.83 | 2.0 | 1.23 | .83 | .50 | 0.0 | .98 | .99 | .49 | 0.0 | 1.30 | .60 | .33 | 0.0 | .89 | 1.29 | 1.67 | 0.0 | 1.25 | 1.00 | 1.00 | 1.0 | 1.00 |
| 33 | .96 | .75 | 0.0 | 1.07 | 1.33 | 1.50 | 2.0 | .82 | 1.14 | 1.13 | 1.0 | .69 | .93 | .66 | 0.0 | 1.20 | .80 | .33 | 0.0 | 1.30 | 1.00 | .75 | 0.0 | 1.16 | .50 | .50 | 0.0 | .71 |
| 34 | 1.03 | .71 | 0.0 | 1.16 | 1.29 | .75 | 0.0 | 1.00 | 1.43 | 1.33 | 1.0 | .98 | .88 | .46 | 0.0 | 1.15 | 1.71 | 1.80 | 2.0 | .95 | 1.18 | 1.00 | 0.0 | 1.17 | 1.00 | 1.00 | 1.0 | 1.00 |
| 35 | 1.37 | 1.13 | 0.0 | 1.34 | 2.00 | 1.75 | 1.0 | 1.16 | 2.43 | 2.25 | 4.0 | 1.62 | 1.13 | .74 | 0.0 | 1.33 | 2.29 | 2.17 | 2.0 | .78 | 1.18 | 1.00 | 0.0 | 1.17 | 1.22 | 2.25 | 2.0 | .58 |
| 36 | 1.91 | 1.79 | 1.0 | 1.46 | 1.86 | 1.25 | 0.0 | 1.77 | 2.86 | 3.00 | 3.0 | 1.07 | 1.68 | 1.36 | 0.0 | 1.45 | 2.00 | 2.00 | 2.0 | 1.63 | 2.73 | 1.88 | 3.0 | 1.10 | 2.67 | 2.50 | 2.0 | 1.16 |
| 37 | 1.80 | 1.76 | 3.0 | 1.35 | 1.43 | 1.00 | 1.0 | 1.51 | 2.29 | 2.25 | 1.0 | 1.11 | 1.60 | 1.36 | 0.0 | 1.39 | 1.71 | 1.75 | 1.0 | 1.11 | 3.00 | 3.00 | 3.0 | .63 | 2.33 | 2.25 | 2.0 | .58 |
| 38 | 1.68 | 1.33 | 0.0 | 1.57 | 1.71 | 1.75 | 0.0 | 1.50 | 3.14 | 3.69 | 4.0 | 1.57 | 1.98 | 1.15 | 0.0 | 1.49 | 1.29 | 1.67 | 0.0 | 1.25 | 1.73 | .42 | 0.0 | 2.01 | 2.33 | 3.00 | 3.0 | 2.08 |
| 39 | 1.11 | .70 | 0.0 | 1.27 | .86 | .67 | 0.0 | 1.07 | 1.83 | 2.00 | 2.0 | 1.17 | 1.12 | .72 | 0.0 | 1.28 | 1.57 | 1.75 | 0.0 | 1.27 | .73 | .19 | 0.0 | 1.42 | .33 | .25 | 0.0 | .58 |
| 40 | 1.18 | .87 | 0.0 | 1.26 | 1.00 | 1.00 | 0.0 | 1.00 | 2.57 | 3.00 | 3.0 | 1.51 | 1.00 | .74 | 0.0 | 1.14 | 1.71 | 1.75 | 1.0 | 1.11 | .91 | .29 | 0.0 | 1.45 | 2.67 | 1.00 | 3.0 | 1.53 |
| 41 | 1.01 | .64 | 0.0 | 1.20 | 1.00 | 1.00 | 0.0 | 1.00 | 2.14 | 2.25 | 2.0 | 1.35 | .95 | .52 | 0.0 | 1.23 | 1.43 | 1.33 | 1.0 | .98 | .36 | .19 | 0.0 | .67 | 1.33 | 1.50 | 2.0 | 1.16 |
| 42 | 2.03 | 2.23 | 0.0 | 1.62 | 2.29 | 3.00 | 4.0 | 1.89 | 3.57 | 3.75 | 4.0 | 1.13 | 1.81 | 1.75 | 0.0 | 1.60 | 2.00 | 2.67 | 3.0 | 1.63 | 2.18 | 2.33 | 0.0 | 1.60 | 2.67 | 2.50 | 2.0 | 1.16 |
| 43 | 1.81 | 1.76 | 0.0 | 1.62 | 1.86 | 2.00 | 0.0 | 1.57 | 2.83 | 3.00 | 3.0 | 1.17 | 1.16 | 1.32 | 0.0 | 1.44 | 1.57 | 1.75 | 0.0 | 1.27 | 2.46 | 2.60 | 3.0 | 1.84 | 3.00 | 3.00 | 3.0 | 1.00 |
| 44 | 1.94 | 1.94 | 0.0 | 1.46 | 1.50 | 1.17 | 1.0 | 1.23 | 2.57 | 2.75 | 2.0 | 1.40 | 1.87 | 1.86 | 0.0 | 1.48 | .50 | .50 | 0.0 | .58 | 2.86 | 3.0 | 4.0 | 1.22 | 3.00 | 3.00 | 3.0 | 1.00 |
| 45 | 1.10 | .86 | 0.0 | 1.28 | .86 | .88 | 1.0 | .69 | 1.86 | 2.00 | 2.0 | 1.07 | 1.24 | .90 | 0.0 | 1.34 | .67 | .50 | 0.0 | .82 | 1.00 | .29 | 0.0 | 1.41 | .33 | .25 | 0.0 | .58 |
| 46 | .91 | .57 | 0.0 | 1.11 | 1.14 | 1.00 | 1.0 | 1.07 | 1.43 | 1.25 | 0.0 | 1.27 | .81 | .43 | 0.0 | 1.09 | .33 | .25 | 0.0 | .52 | 1.27 | 1.00 | 0.0 | 1.27 | 1.67 | 1.50 | 1.0 | 1.16 |
| 47 | 1.19 | .63 | 0.0 | 1.42 | 1.67 | 1.50 | 0.0 | 1.63 | 1.86 | 2.00 | 0.0 | 1.57 | 1.18 | .58 | 0.0 | 1.43 | .40 | .33 | 0.0 | .55 | 1.00 | .38 | 0.0 | 1.60 | 1.00 | 1.00 | 1.0 | 1.00 |
| 48 | 1.12 | .66 | 0.0 | 1.32 | 1.29 | 1.00 | 0.0 | 1.50 | 1.57 | 1.67 | 2.0 | .98 | 1.22 | .71 | 0.0 | 1.40 | .33 | .25 | 0.0 | .52 | .60 | .21 | 0.0 | 1.08 | .67 | .75 | 1.0 | .58 |
| 49 | 1.72 | 1.56 | 0.0 | 1.53 | .57 | .63 | 1.0 | .54 | 1.43 | 1.33 | 0.0 | 1.51 | 1.66 | 1.46 | 0.0 | 1.57 | .86 | .67 | 0.0 | 1.07 | 2.27 | 3.19 | 3.0 | .47 | 3.00 | 3.00 | 3.0 | 1.00 |
| 50 | 1.04 | .48 | 0.0 | 1.38 | .29 | .20 | 0.0 | .49 | .71 | .20 | 0.0 | 1.50 | 1.14 | .53 | 0.0 | 1.46 | .86 | .67 | 0.0 | 1.07 | 1.18 | .75 | 0.0 | 1.40 | 1.00 | 1.00 | 1.0 | 1.00 |

Note. $\bar{X}$ = mean Mn = median Mo = mode SD = standard deviation

TABLE 21

ANALYSIS OF PERCEPTIONS OF PROBLEMS BY RESPONDENTS BY RURAL GROUP AND PROGRAM AREAS

| Problem | Total | | | | Agriculture | | | | Bus./Office | | | | Distributive | | | | Diversified | | | | Health | | | | Home Economics | | | | 4-H | | | | Industrial | | | | Technical | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD |
| 1 | 1.50 | 1.43 | 0.0 | 1.31 | 2.00 | 2.50 | 3.0 | 1.41 | .67 | .25 | 0.0 | 1.23 | 1.67 | 1.00 | 0.0 | 2.08 | .75 | .50 | 0.0 | 1.50 | 2.0 | 2.0 | 2.0 | 0.0 | 2.40 | 3.00 | 4.0 | 1.82 | .93 | .40 | 0.0 | 1.21 | 1.69 | 1.69 | 2.0 | .99 | 2.25 | 2.17 | 2.0 | |
| 2 | .36 | .15 | 0.0 | .75 | 0.00 | 0.00 | 0.0 | 0.00 | .17 | .10 | 0.0 | .39 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | 0.00 | 0.0 | 0.00 | 2.0 | 2.0 | 2.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | .48 | .14 | 0.0 | 1.05 | .17 | .00 | 0.0 | .45 | .63 | .50 | 0.0 | |
| 3 | 1.14 | .86 | 0.0 | 1.24 | 1.50 | 1.50 | 0.0 | 1.29 | 1.25 | .83 | 0.0 | 1.49 | 1.67 | 1.00 | 0.0 | 2.08 | 0.00 | 0.00 | 0.0 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | .96 | .56 | 0.0 | 1.09 | 1.23 | 1.22 | 2.0 | 1.06 | 1.25 | .60 | 0.0 | |
| 4 | .97 | .40 | 0.0 | 1.20 | .25 | .17 | 0.0 | .50 | 1.17 | .83 | 0.0 | 1.34 | .67 | .50 | 0.0 | 1.16 | 1.75 | 1.50 | 0.0 | 1.71 | 1.0 | 1.0 | 1.0 | 1.0 | 1.00 | .33 | 0.0 | 1.41 | .67 | .30 | 0.0 | 1.05 | .94 | .47 | 0.0 | 1.14 | 1.13 | .50 | 0.0 | |
| 5 | .80 | .30 | 0.0 | 1.26 | 1.25 | .95 | .5 | 1.09 | 1.33 | 1.00 | 0.0 | 1.44 | .33 | .25 | 0.0 | .58 | 1.50 | 1.00 | 0.0 | 1.92 | 1.0 | 1.0 | 1.0 | 0.0 | 1.00 | .33 | 0.0 | 1.41 | .33 | .00 | 0.0 | .75 | .63 | .23 | 0.0 | 1.17 | .50 | .30 | 0.0 | |
| 6 | 1.41 | .90 | 0.0 | 1.52 | 2.50 | 3.00 | 3.0 | 1.73 | 2.20 | 2.50 | 4.0 | 1.81 | .67 | .50 | 0.0 | 1.16 | 1.25 | .50 | 0.0 | 1.89 | 1.0 | 1.0 | 1.0 | 0.0 | 1.20 | 1.00 | 0.0 | 1.64 | .89 | .95 | 0.0 | .29 | 1.44 | 1.12 | 1.0 | 1.31 | 2.38 | 2.75 | 3.0 | |
| 7 | 1.05 | .30 | 0.0 | 1.56 | 1.75 | .50 | 0.0 | 2.06 | 2.17 | 1.00 | 0.0 | 1.95 | 1.67 | 2.00 | 0.0 | 1.53 | 0.00 | 0.00 | 0.0 | 0.00 | 1.0 | 1.0 | 1.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | .67 | .30 | 0.0 | .96 | .52 | .19 | 0.0 | 1.03 | 1.29 | 1.00 | 0.0 | |
| 8 | .90 | .35 | 0.0 | 1.41 | 1.75 | .50 | 0.0 | 2.06 | 1.75 | .50 | 0.0 | 2.01 | .33 | .25 | 0.0 | .58 | 1.75 | .50 | 0.0 | 2.06 | 1.0 | 1.0 | 1.0 | 0.0 | .40 | .13 | 0.0 | .55 | .89 | .85 | 0.0 | .29 | .63 | .17 | 0.0 | 1.26 | 1.88 | 1.50 | 0.0 | |
| 9 | 1.56 | 1.40 | 0.0 | 1.38 | .75 | .50 | 0.0 | .96 | 1.17 | 1.00 | 0.0 | 1.19 | 1.33 | 1.00 | 0.0 | 2.31 | 2.00 | 2.50 | 3.0 | 1.41 | 2.0 | 2.0 | 2.0 | 0.0 | 2.00 | 3.33 | 4.0 | 1.79 | 1.62 | 1.57 | 0.0 | 1.35 | 1.57 | 1.42 | 0.0 | 1.42 | 2.00 | 2.00 | 0.0 | |
| 10 | .85 | .46 | 0.0 | 1.06 | 1.75 | 1.50 | 0.0 | 1.71 | .75 | .36 | 0.0 | 1.06 | .67 | .50 | 0.0 | 1.16 | .25 | .17 | 0.0 | .50 | 0.0 | 0.0 | 0.0 | 0.0 | 1.20 | .67 | 0.0 | 1.79 | .83 | .57 | 0.0 | .93 | .54 | .23 | 0.0 | .92 | 1.25 | 1.00 | 0.0 | |
| 11 | .59 | .22 | 0.0 | 1.05 | .67 | .50 | 0.0 | 1.16 | 1.17 | 1.00 | 0.0 | 1.19 | 0.00 | 0.00 | 0.0 | 0.00 | .25 | .17 | 0.0 | .50 | 0.0 | 0.0 | 0.0 | 0.0 | .80 | .50 | 0.0 | 1.79 | .73 | .35 | 0.0 | 1.06 | .26 | .10 | 0.0 | .61 | .13 | .07 | 0.0 | |
| 12 | .65 | .23 | 0.0 | 1.10 | .67 | .50 | 0.0 | 1.16 | 1.25 | 1.50 | 0.0 | 1.22 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | 0.00 | 0.0 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | .60 | .38 | 0.0 | 1.34 | .29 | .12 | 0.0 | .64 | .55 | .21 | 0.0 | .96 | .50 | .30 | 0.0 | |
| 13 | 1.37 | .93 | 0.0 | 1.49 | 1.00 | .75 | 0.0 | 1.73 | 1.50 | .50 | 0.0 | 1.68 | .67 | .50 | 0.0 | 1.16 | 1.50 | 1.00 | 0.0 | 1.92 | 1.0 | 1.0 | 1.0 | 0.0 | 1.60 | 1.33 | 0.0 | 2.19 | 1.48 | 1.33 | 0.0 | 1.50 | .59 | .34 | 0.0 | .89 | 1.57 | 1.67 | 2.0 | |
| 14 | 1.17 | 1.00 | 0.0 | 1.16 | 1.25 | 1.50 | 2.0 | .96 | 1.50 | 1.50 | 0.0 | 1.44 | 1.00 | 1.00 | 0.0 | 1.00 | 2.00 | 1.56 | 0.0 | 1.83 | 2.0 | 2.0 | 2.0 | 0.0 | .80 | .67 | 0.0 | 1.10 | 1.00 | .71 | 0.0 | 1.13 | .91 | .67 | 0.0 | 1.04 | 1.50 | 1.75 | 2.0 | |
| 15 | 1.19 | .47 | 0.0 | 1.50 | 2.00 | 1.50 | 0.0 | 1.83 | 2.00 | 1.50 | 0.0 | 1.81 | .67 | .50 | 0.0 | 1.16 | 1.75 | 1.50 | 0.0 | 1.71 | 0.0 | 0.0 | 0.0 | 0.0 | 1.60 | 1.33 | 0.0 | 2.19 | .52 | .24 | 0.0 | .87 | .69 | .26 | 0.0 | 1.16 | 2.13 | 2.50 | 0.0 | |
| 16 | 2.28 | 2.65 | 4.0 | 1.52 | 2.00 | 2.50 | 3.0 | 1.41 | 2.33 | 2.90 | 3.0 | 1.61 | 1.00 | 1.00 | 0.0 | 1.00 | 2.25 | 1.50 | 1.0 | 1.50 | 3.0 | 3.0 | 3.0 | 0.0 | 1.60 | 1.25 | 1.0 | 1.34 | 1.76 | 1.00 | 0.0 | 1.62 | 2.43 | 2.60 | 4.0 | 1.56 | 3.13 | 3.50 | 4.0 | |
| 17 | 2.56 | 2.96 | 4.0 | 1.48 | 3.00 | 3.33 | 4.0 | 2.00 | 2.50 | 3.50 | 4.0 | 1.78 | 2.33 | 3.25 | 1.0 | .58 | 2.00 | 1.50 | 0.0 | 1.83 | 4.0 | 4.0 | 4.0 | 0.0 | 3.20 | 3.50 | 4.0 | 1.79 | 1.83 | 1.58 | 1.0 | 1.37 | 2.86 | 3.29 | 4.0 | 1.44 | 3.00 | 3.17 | 3.0 | |
| 18 | 1.76 | 1.75 | 0.0 | 1.58 | 2.75 | 3.50 | 4.0 | 1.89 | 2.02 | 1.58 | 4.0 | 1.54 | 1.00 | 1.00 | 0.0 | 1.00 | 1.25 | .50 | 0.0 | 1.09 | 3.0 | 3.0 | 3.0 | 0.0 | 1.60 | 1.33 | 0.0 | 2.19 | .68 | .36 | 0.0 | .89 | 1.77 | 1.92 | 0.0 | 1.57 | 2.00 | 2.63 | 3.0 | |
| 19 | 1.51 | 1.09 | 0.0 | 1.55 | 1.75 | .50 | 0.0 | 2.06 | 2.66 | 2.00 | 3.0 | 1.51 | 0.00 | 0.00 | 0.0 | 0.00 | 2.50 | 2.33 | 2.0 | 1.00 | 3.0 | 3.0 | 3.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 1.07 | .32 | 0.0 | 1.51 | 1.74 | 1.33 | 0.0 | 1.09 | 1.38 | 1.50 | 0.0 | |
| 20 | 1.22 | .78 | 0.0 | 2.36 | 2.00 | 1.50 | 0.0 | 1.83 | 1.00 | .50 | 0.0 | 1.24 | 1.50 | 1.00 | 0.0 | 1.53 | .50 | .50 | 0.0 | .58 | 0.0 | 0.0 | 0.0 | 0.0 | 1.20 | 1.00 | 0.0 | 1.64 | .13 | .05 | 0.0 | .45 | 1.71 | 1.73 | 2.0 | 1.30 | 2.00 | 1.50 | 0.0 | |
| 21 | 1.16 | .95 | 0.0 | 1.14 | 2.00 | 2.50 | 3.0 | 1.41 | 1.33 | 1.10 | 1.0 | 1.16 | .33 | .25 | 0.0 | .58 | 1.25 | .50 | 0.0 | 1.50 | 2.0 | 2.0 | 2.0 | 0.0 | .20 | .13 | 0.0 | .45 | 1.07 | .00 | 0.0 | 1.14 | .86 | .79 | 1.0 | .95 | 2.13 | 2.00 | 1.0 | |
| 22 | 1.09 | .85 | 0.0 | 1.14 | 1.50 | 1.33 | 1.0 | 1.00 | .92 | .50 | 0.0 | 1.00 | .33 | .25 | 0.0 | .58 | 2.25 | 2.50 | 0.0 | 1.71 | 1.0 | 1.0 | 1.0 | 0.0 | 2.00 | 2.75 | 3.0 | 1.87 | 1.17 | 1.50 | 2.0 | 1.04 | .89 | .47 | 0.0 | 1.00 | 1.25 | 1.17 | 1.0 | |
| 23 | 1.21 | 1.14 | 0.0 | 1.13 | 1.25 | 1.00 | 1.0 | 1.26 | 1.00 | .83 | 0.0 | 1.04 | .33 | .25 | 0.0 | .58 | 2.00 | 2.00 | 2.0 | 1.63 | 2.0 | 2.0 | 2.0 | 0.0 | 1.40 | 1.75 | 2.0 | 1.34 | 1.47 | 1.67 | 2.0 | 1.12 | .94 | .47 | 0.0 | 1.14 | 1.38 | 1.50 | 0.0 | |
| 24 | .95 | .54 | 0.0 | 1.16 | 2.00 | 2.00 | 2.0 | .82 | .75 | .38 | 0.0 | 1.06 | 0.00 | 0.00 | 0.0 | 0.00 | .25 | .17 | 0.0 | .50 | 2.0 | 2.0 | 2.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | .86 | .43 | 0.0 | 1.27 | 1.11 | .78 | 0.0 | 1.26 | .75 | .38 | 0.0 | |
| 25 | 1.68 | 1.68 | 2.0 | 1.33 | 2.00 | 1.50 | 0.0 | 1.83 | 1.46 | 1.33 | 0.0 | 1.21 | 0.00 | 0.00 | 0.0 | 0.00 | 1.50 | 1.50 | 0.0 | 1.29 | 2.0 | 2.0 | 2.0 | 0.0 | 3.20 | 3.50 | 4.0 | 1.79 | 1.25 | 1.00 | 0.0 | 1.34 | 1.74 | 1.71 | 2.0 | 1.15 | 2.13 | 2.50 | 0.0 | |
| 26 | 1.71 | 1.02 | 0.0 | 2.33 | 2.25 | 2.50 | 0.0 | 1.71 | 1.25 | 1.25 | 1.0 | .97 | 0.00 | 0.00 | 0.0 | 0.00 | .25 | .17 | 0.0 | .50 | 2.0 | 2.0 | 2.0 | 0.0 | 3.20 | 3.50 | 4.0 | 1.79 | .86 | .41 | 0.0 | 1.27 | 1.76 | 1.69 | 0.0 | 1.17 | 1.75 | 1.50 | 0.0 | |
| 27 | 1.67 | 1.30 | 0.0 | 1.54 | 2.50 | 3.00 | 4.0 | 1.92 | 1.67 | 1.43 | 0.0 | 2.06 | 0.33 | 0.25 | 0.0 | 0.58 | 0.00 | 0.00 | 0.0 | 0.00 | 2.0 | 2.0 | 2.0 | 0.0 | 2.00 | 3.25 | 3.0 | 1.64 | 1.10 | 0.50 | 0.0 | 1.32 | 1.54 | 1.75 | 1.0 | 1.41 | 1.88 | 1.50 | 0.0 | |
| 28 | 1.13 | .55 | 0.0 | 1.36 | 1.50 | 1.50 | 0.0 | 1.73 | 1.33 | .36 | 0.0 | 1.67 | 0.33 | 0.25 | 0.0 | 0.50 | 0.00 | 0.00 | 0.0 | 0.00 | 2.0 | 2.0 | 2.0 | 0.0 | 1.60 | 1.33 | 0.0 | 2.19 | .76 | 0.31 | 0.0 | 1.22 | 1.11 | .75 | 0.0 | 1.39 | 1.38 | 1.00 | 0.0 | |
| 29 | 1.71 | 1.48 | 0.0 | 1.53 | 2.50 | 3.00 | 4.0 | 1.92 | 1.50 | .50 | 0.0 | 1.78 | 0.00 | 0.00 | 0.0 | 0.00 | 1.00 | .50 | 0.0 | 1.41 | 2.0 | 2.0 | 2.0 | 0.0 | 2.40 | 2.63 | 3.0 | 1.34 | 1.00 | 0.75 | 0.0 | 1.17 | 2.23 | 2.32 | 4.0 | 1.52 | 2.00 | 3.17 | 3.0 | |
| 30 | 1.69 | 1.50 | 1.0 | 1.24 | 3.00 | 3.00 | 3.0 | .82 | 1.25 | 1.00 | 0.0 | 1.29 | 0.67 | 0.75 | 1.0 | 0.58 | 1.50 | 1.50 | 0.0 | 1.29 | 2.0 | 2.0 | 2.0 | 0.0 | 2.60 | 2.75 | 3.0 | .89 | 1.45 | 1.33 | 1.0 | 1.15 | 1.71 | 1.50 | 1.0 | 1.22 | 2.38 | 2.50 | 2.1 | |
| 31 | 1.27 | 1.02 | 0.0 | 1.29 | 3.00 | 3.00 | 2.0 | 1.00 | .75 | .25 | 0.0 | 1.14 | 0.00 | 0.00 | 0.0 | 0.00 | 2.00 | 1.50 | 0.0 | 1.83 | 0.0 | 0.0 | 0.0 | 0.0 | .80 | .67 | 0.0 | 1.10 | 1.22 | 1.00 | 1.0 | 1.20 | 1.34 | 1.17 | 0.0 | 1.34 | 1.50 | .50 | 0.0 | |
| 32 | 1.01 | .53 | 0.0 | 1.24 | 1.33 | 1.50 | 2.0 | 1.16 | .50 | .36 | 0.0 | .67 | 1.50 | 1.50 | 1.0 | .71 | 2.25 | 2.50 | 0.0 | 1.71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 1.13 | 1.00 | 1.0 | .92 | .91 | .42 | 0.0 | 1.20 | 2.13 | 1.54 | 4.0 | |
| 33 | .96 | .75 | 0.0 | 1.07 | 1.33 | 1.50 | 2.0 | 1.16 | 1.17 | 1.00 | 1.0 | 1.12 | 1.00 | 1.00 | 1.0 | 0.00 | 2.50 | 3.00 | 3.0 | 1.73 | 1.0 | 1.0 | 1.0 | 0.0 | .80 | .75 | 0.0 | .84 | 1.00 | 1.00 | 1.0 | .95 | .54 | .30 | 0.0 | .89 | 1.63 | 1.50 | 0.0 | |
| 34 | 1.03 | .71 | 0.0 | 1.16 | 1.00 | .50 | 0.0 | 1.41 | .92 | .50 | 0.0 | 1.08 | .33 | .25 | 0.0 | .58 | 2.00 | 2.50 | 3.0 | 1.41 | 1.0 | 1.0 | 1.0 | 0.0 | 1.60 | 2.00 | 3.0 | 1.52 | 1.17 | 1.07 | 0.0 | 1.09 | .54 | .26 | 0.0 | .98 | 1.50 | 1.17 | 1.0 | |
| 35 | 1.37 | 1.13 | 0.0 | 1.34 | 1.75 | 1.83 | 2.0 | .50 | 1.00 | .25 | 0.0 | 1.65 | .67 | .50 | 0.0 | 1.16 | .75 | .50 | 0.0 | .96 | 1.0 | 1.0 | 1.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 1.24 | .92 | 0.0 | 1.35 | 1.06 | 1.15 | 1.0 | 1.34 | 1.88 | 1.50 | 1.0 | |
| 36 | 1.91 | 1.79 | 1.0 | 1.44 | 2.00 | 1.50 | 1.0 | 1.93 | 1.85 | 1.17 | 0.0 | 1.71 | .67 | .50 | 0.0 | 1.16 | 1.00 | .50 | 0.0 | 1.41 | 3.0 | 3.0 | 3.0 | 0.0 | 1.60 | 1.33 | 0.0 | 2.19 | 1.31 | 1.22 | 1.0 | 1.14 | 2.34 | 2.65 | 3.0 | 1.39 | 2.38 | 2.50 | 2.0 | |
| 37 | 1.88 | 1.76 | 3.0 | 1.35 | 2.00 | 2.00 | 1.0 | 1.16 | 1.00 | .50 | 0.0 | 1.35 | .67 | .50 | 0.0 | 1.16 | 1.00 | 1.00 | 1.0 | .82 | 2.0 | 2.0 | 2.0 | 0.0 | .60 | .33 | 0.0 | .89 | 1.71 | 1.83 | 0.0 | 1.44 | 2.26 | 2.61 | 3.0 | 1.27 | 2.13 | 2.50 | 3.0 | |
| 38 | 1.88 | 1.33 | 0.0 | 1.57 | 1.75 | .50 | 0.0 | 2.06 | 2.33 | 2.50 | 4.0 | 1.83 | 1.33 | 1.00 | 0.0 | 2.31 | .25 | .17 | 0.0 | .50 | 1.0 | 1.0 | 1.0 | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | .97 | .47 | 0.0 | 1.20 | 2.09 | 1.80 | 1.0 | 1.52 | 2.63 | 3.17 | 3.0 | |
| 39 | 1.11 | .78 | 0.0 | 1.27 | 1.33 | 1.00 | 0.0 | 1.53 | .83 | .50 | 0.0 | 1.03 | .67 | .50 | 0.0 | 1.16 | .50 | .50 | 0.0 | .58 | 1.0 | 1.0 | 1.0 | 0.0 | 0.00 | .13 | 0.0 | .45 | 1.00 | 5.00 | 0.0 | 1.19 | 1.20 | .69 | 0.0 | 1.45 | 1.25 | 1.50 | 0.0 | |
| 40 | 1.10 | .87 | 0.0 | 1.26 | 1.50 | 1.00 | 0.0 | 1.92 | .83 | .50 | 0.0 | 1.12 | 1.33 | 1.00 | 0.0 | 2.31 | 1.00 | .50 | 0.0 | 1.41 | 2.0 | 2.0 | 2.0 | 0.0 | 1.20 | 1.33 | 2.0 | 1.10 | 1.24 | .89 | 0.0 | 1.35 | .98 | .47 | 0.0 | 1.05 | 1.38 | 1.00 | 1.0 | |
| 41 | 1.01 | .64 | 0.0 | 1.20 | 1.00 | 1.00 | 0.0 | 1.16 | .67 | .25 | 0.0 | 1.16 | 2.33 | 3.00 | 0.0 | 2.08 | .50 | .50 | 0.0 | .58 | 2.0 | 2.0 | 2.0 | 0.0 | .60 | .67 | 1.0 | .55 | .71 | .32 | 0.0 | 1.05 | .86 | .47 | 0.0 | 1.22 | 1.88 | 2.00 | 0.0 | |
| 42 | 2.03 | 2.23 | 0.0 | 1.62 | 2.75 | 3.50 | 4.0 | 1.09 | 1.75 | 1.00 | 0.0 | 1.87 | 1.67 | 2.00 | 0.0 | 1.53 | 1.50 | 1.00 | 1.0 | 1.73 | 3.0 | 3.0 | 3.0 | 0.0 | 1.20 | 1.00 | 0.0 | 1.64 | 1.13 | 1.00 | 0.0 | 1.14 | 1.51 | 3.00 | 4.0 | 1.56 | 1.50 | .50 | 0.0 | |
| 43 | 1.01 | 1.76 | 0.0 | 1.42 | .67 | .50 | 0.0 | 1.16 | 1.50 | 1.25 | 1.0 | 1.44 | 1.00 | 1.00 | 0.0 | 1.00 | .75 | .50 | 0.0 | .96 | 1.0 | 1.0 | 1.0 | 0.0 | 1.80 | 1.33 | 0.0 | 2.19 | 1.46 | 1.38 | 1.0 | 1.10 | 4.11 | 2.55 | 3.0 | 1.55 | 2.25 | 2.50 | 0.0 | |
| 44 | 1.94 | 1.94 | 0.0 | 1.46 | 1.00 | .50 | 0.0 | 1.41 | 2.33 | 2.83 | 4.0 | 1.67 | 1.33 | 1.00 | 0.0 | 1.53 | 1.00 | 1.00 | 1.0 | .82 | 2.0 | 2.0 | 2.0 | 0.0 | 1.20 | 1.00 | 0.0 | 1.64 | 1.00 | .70 | 0.0 | 1.24 | 2.56 | 2.64 | 4.0 | 1.31 | 1.88 | 2.00 | 0.0 | |
| 45 | 1.10 | .88 | 0.0 | 1.28 | 1.50 | 1.50 | 0.0 | 1.73 | 1.00 | .90 | 1.0 | 1.17 | .33 | .25 | 0.0 | .58 | .75 | .50 | 0.0 | .96 | 0.0 | 0.0 | 0.0 | 0.0 | 1.00 | .33 | 0.0 | 1.95 | .86 | .31 | 0.0 | 1.05 | 1.06 | 1.33 | 0.0 | 1.25 | 2.25 | 2.50 | 0.0 | |
| 46 | .91 | .57 | 0.0 | 1.11 | .50 | .50 | 0.0 | .58 | .92 | .50 | 0.0 | 1.24 | .33 | .25 | 0.0 | .58 | .25 | .17 | 0.0 | .50 | 0.0 | 0.0 | 0.0 | 0.0 | .80 | .25 | 0.0 | .89 | .72 | .55 | 0.0 | .92 | 1.06 | .69 | 0.0 | 1.19 | 1.38 | 1.50 | 0.0 | |
| 47 | 1.19 | .63 | 0.0 | 1.42 | .50 | .50 | 0.0 | .58 | .75 | .36 | 0.0 | 1.22 | .67 | .50 | 0.0 | 1.16 | 1.00 | .50 | 0.0 | 1.41 | 1.0 | 1.0 | 1.0 | 0.0 | .80 | .75 | 1.0 | .84 | 1.09 | .75 | 0.0 | 1.28 | 1.35 | .44 | 0.0 | 1.67 | 1.38 | .50 | 0.0 | |
| 48 | 1.12 | .66 | 0.0 | 1.32 | .25 | .17 | 0.0 | .50 | 1.00 | .50 | 0.0 | 1.38 | .33 | .25 | 0.0 | .58 | 1.00 | .50 | 0.0 | 1.41 | 2.0 | 2.0 | 2.0 | 0.0 | 1.00 | 1.00 | 1.0 | 1.00 | .92 | .50 | 0.0 | 1.25 | 1.09 | .57 | 0.0 | 1.31 | 2.00 | 2.50 | 0.0 | |
| 49 | 1.72 | 1.56 | 0.0 | 1.53 | 1.33 | 1.00 | 0.0 | 1.53 | 1.42 | 1.50 | 0.0 | 1.21 | 1.00 | 1.00 | 0.0 | 1.00 | 2.75 | 3.00 | 3.0 | 1.26 | 2.0 | 2.0 | 2.0 | 0.0 | .40 | .25 | 0.0 | .89 | 2.31 | 2.56 | 3.0 | 1.54 | 1.06 | 1.67 | 0.0 | 1.67 | 1.63 | .50 | 0.0 | |
| 50 | 1.04 | .48 | 0.0 | 1.38 | 1.33 | 1.00 | 0.0 | 2.31 | .67 | .36 | 0.0 | .99 | .33 | .25 | 0.0 | .58 | .50 | .50 | 0.0 | .58 | 0.0 | 0.0 | 0.0 | 0.0 | .60 | .67 | 1.0 | .55 | .97 | .58 | 0.0 | 1.15 | 1.0 | 1.00 | 0.0 | 1.74 | .59 | .30 | 0.0 | |

Note. $\bar{X}$ = mean; Me = median; Mo = mode; SD = standard deviation

TABLE 22

ANALYSIS ON RECOMMENDATIONS OF RESPONDENTS BY TOTAL GROUP AND SCHOOL DISTRICT

| Recommendations | Total | | | | Marion | | | | Pinellas | | | | St. Johns | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD |
| 1 | 2.13 | 1.92 | 1.0 | 1.13 | 2.47 | 2.40 | 1.0 | 1.17 | 2.16 | 1.90 | 1.0 | 1.19 | .00 | 1.77 | 1.0 | 1.06 |
| 2 | 2.67 | 2.79 | 4.0 | 1.21 | 3.00 | 3.11 | 3.0 | .94 | 2.68 | 2.80 | 4.0 | 1.25 | 2.55 | 2.42 | 4.0 | 1.26 |
| 3 | 3.61 | 3.80 | 4.0 | .71 | 3.45 | 3.67 | 4.0 | .76 | 3.47 | 3.74 | 4.0 | .88 | 3.74 | 3.87 | 4.0 | .55 |
| 4 | 3.75 | 3.88 | 4.0 | .58 | 3.95 | 3.99 | 4.0 | .22 | 3.71 | 3.87 | 4.0 | .68 | 3.71 | 3.84 | 4.0 | .59 |
| 5 | 3.74 | 3.87 | 4.0 | .58 | 3.40 | 3.59 | 4.0 | .82 | 3.85 | 3.91 | 4.0 | .36 | 3.79 | 3.91 | 4.0 | .55 |
| 6 | 3.61 | 3.83 | 4.0 | .75 | 3.25 | 3.50 | 4.0 | .91 | 3.76 | 3.89 | 4.0 | .56 | 3.64 | 3.86 | 4.0 | .76 |
| 7 | 3.20 | 3.42 | 4.0 | .96 | 3.30 | 3.39 | 3.0 | .80 | 3.35 | 3.61 | 4.0 | .88 | 3.09 | 3.30 | 4.0 | 1.04 |
| 8 | 3.64 | 3.80 | 4.0 | .69 | 3.85 | 3.91 | 4.0 | .37 | 3.61 | 3.75 | 4.0 | .66 | 3.59 | 3.78 | 4.0 | .77 |
| 9 | 3.65 | 3.79 | 4.0 | .63 | 3.55 | 3.73 | 4.0 | .69 | 3.59 | 3.69 | 4.0 | .56 | 3.71 | 3.84 | 4.0 | .65 |
| 10 | 2.48 | 2.29 | 2.0 | 1.09 | 1.65 | 1.61 | 1.0 | .67 | 2.81 | 2.70 | 2.0 | 1.06 | 2.58 | 2.43 | 2.0 | 1.10 |
| 11 | 3.47 | 3.69 | 4.0 | .85 | 3.40 | 3.67 | 4.0 | .88 | 3.62 | 3.74 | 4.0 | .56 | 3.41 | 3.68 | 4.0 | .96 |
| 12 | 3.55 | 3.64 | 4.0 | .57 | 3.35 | 3.59 | 4.0 | .61 | 3.56 | 3.65 | 4.0 | .56 | 3.56 | 3.66 | 4.0 | .57 |
| 13 | 3.49 | 3.60 | 4.0 | .68 | 3.36 | 3.59 | 4.0 | .51 | 3.55 | 3.64 | 4.0 | .57 | 3.44 | 3.58 | 4.0 | .78 |
| 14 | 3.09 | 3.23 | 3.0 | 1.00 | 2.68 | 2.89 | 3.1 | 1.11 | 3.50 | 3.66 | 4.0 | .67 | 2.98 | 3.14 | 3.0 | 1.05 |
| 15 | 3.64 | 3.76 | 4.0 | .61 | 3.55 | 3.67 | 4.0 | .61 | 3.77 | 3.85 | 4.0 | .43 | 3.59 | 3.73 | 4.0 | .69 |
| 16 | 3.36 | 3.60 | 4.0 | .86 | 3.15 | 3.25 | 3.0 | .88 | 3.58 | 3.78 | 4.0 | .71 | 3.32 | 3.55 | 4.0 | .93 |
| 17 | 3.61 | 3.82 | 4.0 | .80 | 3.50 | 3.59 | 4.0 | 1.07 | 3.74 | 3.85 | 4.0 | .51 | 3.66 | 3.86 | 4.0 | .80 |
| 18 | 3.43 | 3.67 | 4.0 | .86 | 3.20 | 3.38 | 4.0 | .95 | 3.56 | 3.73 | 4.0 | .71 | 3.42 | 3.70 | 4.0 | .91 |
| 19 | 3.60 | 3.77 | 4.0 | .70 | 3.45 | 3.50 | 4.0 | .61 | 3.71 | 3.82 | 4.0 | .52 | 3.59 | 3.80 | 4.0 | .81 |
| 20 | 3.35 | 3.64 | 4.0 | .94 | 2.80 | 2.93 | 3.0 | 1.11 | 3.65 | 3.79 | 4.0 | .60 | 3.37 | 3.68 | 4.0 | .98 |
| 21 | 3.12 | 3.40 | 4.0 | 1.07 | 2.30 | 2.59 | 3.0 | .92 | 3.27 | 3.58 | 4.0 | 1.05 | 3.32 | 3.66 | 4.0 | 1.01 |
| 22 | 2.61 | 2.90 | 4.0 | 1.32 | 2.55 | 2.75 | 3.0 | 1.04 | 2.41 | 2.80 | 3.0 | 1.44 | 2.72 | 3.08 | 4.0 | 1.35 |
| 23 | 3.39 | 3.68 | 4.0 | .96 | 3.53 | 3.55 | 4.0 | .51 | 3.53 | 3.77 | 4.0 | .88 | 3.26 | 3.66 | 4.0 | 1.10 |

Note. $\bar{X}$ = mean; Me = median; Mo = mode; SD = standard deviation.

TABLE 23

NUMBER AND PERCENTAGE OF RECOMMENDATIONS BY CATEGORY
AGREEMENT, AND SCHOOL DISTRICT

| Category | Level of Agreement* | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % |
| Policies and Procedures | Strongly Disagree-Diagree | 1 | 8 | — | — | — | — |
| | Disagree-Agree | 1 | 8 | 3 | 23 | 3 | 23 |
| | Agree-Strongly Agree | 11 | 84 | 10 | 77 | 10 | 77 |
| Curriculum and Instruction | Strongly Disagree-Disagree | — | — | — | — | — | — |
| | Disagree-Agree | 1 | 25 | — | — | 1 | 25 |
| | Agree-Strongly Agree | 3 | 75 | 4 | 100 | 3 | 75 |
| Staffing and Staff Development | Strongly Disagree-Disagree | — | — | — | — | — | — |
| | Disagree-Agree | 2 | 50 | — | — | — | — |
| | Agree-Strongly Agree | 2 | 50 | 4 | 100 | 4 | 100 |
| Facilities Equipment Materials | Strongly Disagree-Disagree | — | — | — | — | — | — |
| | Disagree-Agree | 1 | 50 | 1 | 50 | 1 | 50 |
| | Agree-Strongly | 1 | 50 | 1 | 50 | 1 | 50 |

*Means Levels of Agreement

1.00 - 1.99 Strongly Disagree-Disagree
2.00 - 2.99 Disagree-Agree
3.00 - 4.00 Agree-Strongly Agree

# = Number
% = Percentage

TABLE 24

PERCENTAGE AND OPTION NUMBERS OF RECOMMENDATIONS WITH GREATEST AGREEMENT BY TOTAL GROUP AND SCHOOL DISTRICT*

| Recommendations Item # | Total Group | | Marion | | Pinellas | | St. Johns | |
|---|---|---|---|---|---|---|---|---|
| | Percent | Option # | Percent | Option # | Percent | Option # | Percent | Option # |
| 1 | ——— | ——— | ——— | ——— | ——— | ——— | ——— | ——— |
| 2 | ——— | ——— | 78.9 | 3, 4 | ——— | ——— | ——— | ——— |
| 3 | 90.9 | 3, 4 | 85.0 | 3, 4 | 87.5 | 3, 4 | 94.8 | 3, 4 |
| 4 | 96.5 | 3, 4 | 100.0 | 3, 4 | 94.1 | 3, 4 | 96.6 | 3, 4 |
| 5 | 96.4 | 3, 4 | 90.0 | 3, 4 | 100.0 | 3, 4 | 96.6 | 3, 4 |
| 6 | 89.3 | 3, 4 | 80.0 | 3, 4 | 93.9 | 3, 4 | 89.8 | 3, 4 |
| 7 | 83.2 | 3, 4 | 90.0 | 3, 4 | 85.3 | 3, 4 | 79.7 | 3, 4 |
| 8 | 96.4 | 3, 4 | 100.0 | 3, 4 | 97.0 | 3, 4 | 94.8 | 3, 4 |
| 9 | 96.5 | 3, 4 | 90.0 | 3, 4 | 97.1 | 3, 4 | 98.3 | 3, 4 |
| 10 | ——— | ——— | ——— | ——— | ——— | ——— | ——— | ——— |
| 11 | 91.0 | 3, 4 | 85.0 | 3, 4 | 96.6 | 3, 4 | 90.2 | 3, 4 |
| 12 | 96.5 | 3, 4 | 95.0 | 3, 4 | 97.1 | 3, 4 | 96.6 | 3, 4 |
| 13 | 96.3 | 3, 4 | 100.0 | 3, 4 | 96.8 | 3, 4 | 94.7 | 3, 4 |
| 14 | 81.2 | 3, 4 | ——— | ——— | 90.6 | 3, 4 | 80.0 | 3, 4 |
| 15 | 98.1 | 3, 4 | 95.0 | 3, 4 | 100.0 | 3, 4 | 98.1 | 3, 4 |
| 16 | 86.4 | 3, 4 | 80.0 | 3, 4 | 87.9 | 3, 4 | 87.7 | 3, 4 |
| 17 | 92.9 | 3, 4 | 80.0 | 3, 4 | 97.1 | 3, 4 | 94.9 | 3, 4 |
| 18 | 88.5 | 3, 4 | 85.0 | 3, 4 | 94.1 | 3, 4 | 86.4 | 3, 4 |
| 19 | 95.6 | 3, 4 | 95.0 | 3, 4 | 97.1 | 3, 4 | 94.9 | 3, 4 |
| 20 | 85.0 | 3, 4 | ——— | ——— | 94.1 | 3, 4 | 86.4 | 3, 4 |
| 21 | ——— | ——— | 80.0 | 2, 3 | 85.3 | 3, 4 | 81.4 | 3, 4 |
| 22 | ——— | ——— | 70.0 | 2, 3 | ——— | ——— | ——— | ——— |
| 23 | 86.7 | 3, 4 | 100.0 | 3, 4 | 90.6 | 3, 4 | 79.6 | 3, 4 |

*Eighty percent or more of the responses of a group fall within two consecutive options.

# = Number
% = Percentage

TABLE 25

ANALYSIS ON RECOMMENDATIONS OF RESPONDENTS BY TOTAL GROUP AND POSITION

| Recommendations | Total | | | | Administrators | | | | Supervisors | | | | Teachers | | | | Counselors | | | | Teacher Aides | | | | Clerical Aides | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD |
| 1 | 2.13 | 1.92 | 1.0 | 1.13 | 2.83 | 2.50 | 4.0 | 1.33 | 3.00 | 3.25 | 4.0 | 1.16 | 2.08 | 1.87 | 1.0 | 1.10 | 2.14 | 2.0 | 1.0 | 1.22 | 1.70 | 1.33 | 1.0 | .95 | 1.33 | 1.25 | 1.0 | .58 |
| 2 | 2.67 | 2.79 | 4.0 | 1.21 | 3.50 | 3.70 | 4.0 | 1.23 | 3.43 | 3.80 | 4.0 | 1.13 | 2.65 | 2.74 | 4.0 | 1.16 | 3.43 | 3.63 | 4.0 | .79 | 1.73 | 1.42 | 1.0 | 1.01 | 1.33 | 1.25 | 1.0 | .58 |
| 3 | 3.61 | 3.80 | 4.0 | .71 | 3.86 | 3.92 | 4.0 | .38 | 3.71 | 3.80 | 4.0 | .49 | 3.60 | 3.79 | 4.0 | .72 | 3.71 | 3.83 | 4.0 | .76 | 3.46 | 3.71 | 4.0 | .82 | 3.33 | 3.50 | 4.0 | 1.16 |
| 4 | 3.75 | 3.88 | 4.0 | .58 | 4.00 | 4.00 | 4.0 | 0.00 | 3.57 | 3.80 | 4.0 | .79 | 3.71 | 3.85 | 4.0 | .63 | 3.86 | 3.92 | 4.0 | .38 | 3.91 | 3.95 | 4.0 | .30 | 4.00 | 4.00 | 4.0 | 0.00 |
| 5 | 3.74 | 3.87 | 4.0 | .58 | 3.29 | 3.63 | 4.0 | 1.11 | 3.57 | 3.80 | 4.0 | .79 | 3.74 | 3.86 | 4.0 | .55 | 4.00 | 4.00 | 4.0 | 0.00 | 4.00 | 4.00 | 4.0 | 0.00 | 3.67 | 3.75 | 4.0 | .58 |
| 6 | 3.61 | 3.83 | 4.0 | .75 | 3.83 | 3.90 | 4.0 | .41 | 4.00 | 4.00 | 4.0 | 0.00 | 3.58 | 3.79 | 4.0 | .75 | 3.57 | 3.80 | 4.0 | .79 | 3.55 | 3.89 | 4.0 | 1.04 | 3.33 | 3.50 | 5.0 | 1.16 |
| 7 | 3.20 | 3.42 | 4.0 | .96 | 3.71 | 3.80 | 4.0 | .49 | 3.29 | 3.33 | 3.0 | .76 | 3.26 | 3.47 | 4.0 | .95 | 3.29 | 3.33 | 3.0 | .76 | 2.73 | 2.75 | 4.0 | 1.19 | 2.00 | 2.00 | 2.0 | 1.00 |
| 8 | 3.64 | 3.80 | 4.0 | .69 | 3.57 | 3.63 | 4.0 | .54 | 3.86 | 3.92 | 4.0 | .38 | 3.58 | 3.76 | 4.0 | .75 | 3.86 | 3.92 | 4.0 | .38 | 3.91 | 3.95 | 4.0 | .30 | 3.33 | 3.50 | 4.0 | 1.16 |
| 9 | 3.65 | 3.79 | 4.0 | .63 | 3.57 | 3.80 | 4.0 | .79 | 3.86 | 3.92 | 4.0 | .38 | 3.59 | 3.84 | 4.0 | .67 | 3.71 | 3.80 | 4.0 | .49 | 3.82 | 3.89 | 4.0 | .41 | 4.00 | 4.00 | 4.0 | 0.00 |
| 10 | 2.48 | 2.29 | 2.0 | 1.09 | 2.33 | 2.17 | 2.0 | 1.03 | 2.29 | 2.20 | 2.0 | .49 | 2.52 | 2.36 | 2.0 | 1.13 | 2.14 | 2.00 | 2.0 | .90 | 2.27 | 2.00 | 1.0 | 1.27 | 3.67 | 3.75 | 4.0 | .58 |
| 11 | 3.47 | 3.69 | 4.0 | .85 | 3.86 | 3.92 | 4.0 | .38 | 3.83 | 3.90 | 4.0 | .41 | 3.37 | 3.61 | 4.0 | .93 | 3.43 | 3.63 | 4.0 | .79 | 3.86 | 3.92 | 4.0 | .38 | 3.50 | 3.50 | 3.0 | .71 |
| 12 | 3.55 | 3.64 | 4.0 | .57 | 3.86 | 3.92 | 4.0 | .38 | 3.29 | 3.33 | 3.0 | .76 | 3.51 | 3.59 | 4.0 | .58 | 3.43 | 3.38 | 3.0 | .54 | 3.82 | 3.89 | 4.0 | .41 | 3.67 | 3.75 | 4.0 | 0.00 |
| 13 | 3.49 | 3.60 | 4.0 | .68 | 4.00 | 4.00 | 4.0 | 0.00 | 3.43 | 3.38 | 3.0 | .54 | 3.51 | 3.56 | 4.0 | .56 | 3.57 | 3.63 | 4.0 | .54 | 3.27 | 3.58 | 4.0 | .79 | 2.67 | 3.00 | 3.0 | 1.53 |
| 14 | 3.09 | 3.23 | 3.0 | 1.00 | 3.00 | 3.50 | 4.0 | 1.55 | 2.71 | 2.88 | 3.0 | .95 | 3.14 | 3.28 | 3.0 | .98 | 2.83 | 3.00 | 3.0 | 1.17 | 3.27 | 3.25 | 3.0 | .65 | 2.67 | 3.00 | 3.0 | 1.53 |
| 15 | 3.64 | 3.76 | 4.0 | .61 | 4.00 | 4.00 | 4.0 | 0.00 | 3.57 | 3.63 | 4.0 | .54 | 3.67 | 3.77 | 4.0 | .50 | 3.57 | 3.63 | 4.0 | .54 | 3.20 | 3.60 | 4.0 | 1.30 | 3.50 | 3.50 | 3.0 | .71 |
| 16 | 3.63 | 3.60 | 4.0 | .86 | 3.86 | 3.92 | 4.0 | .38 | 3.29 | 3.63 | 4.0 | 1.11 | 3.40 | 3.60 | 4.0 | .82 | 3.00 | 3.00 | 3.0 | .58 | 3.18 | 3.58 | 4.0 | 1.08 | 3.00 | 3.25 | 4.0 | 1.73 |
| 17 | 3.61 | 3.82 | 4.0 | .80 | 3.43 | 3.38 | 3.0 | .54 | 3.86 | 3.92 | 4.0 | .38 | 3.55 | 3.82 | 4.0 | .91 | 3.71 | 3.80 | 4.0 | .49 | 3.82 | 3.89 | 4.0 | .41 | 4.00 | 4.00 | 4.0 | 0.00 |
| 18 | 3.43 | 3.67 | 4.0 | .86 | 3.43 | 3.80 | 4.0 | 1.13 | 3.57 | 3.80 | 4.0 | .79 | 3.42 | 3.63 | 4.0 | .83 | 3.14 | 3.33 | 3.0 | 1.07 | 3.46 | 3.81 | 4.0 | 1.04 | 3.67 | 3.75 | 4.0 | .58 |
| 19 | 3.60 | 3.77 | 4.0 | .70 | 3.86 | 3.92 | 4.0 | .38 | 3.71 | 3.80 | 4.0 | .49 | 3.51 | 3.70 | 4.0 | .79 | 3.71 | 3.80 | 4.0 | .49 | 3.91 | 3.95 | 4.0 | .30 | 3.67 | 3.75 | 4.0 | .58 |
| 20 | 3.35 | 3.64 | 4.0 | .94 | 3.14 | 3.63 | 4.0 | 1.46 | 3.71 | 3.83 | 4.0 | .76 | 3.31 | 3.61 | 4.0 | .94 | 3.43 | 3.63 | 4.0 | .79 | 3.36 | 3.58 | 4.0 | .92 | 3.33 | 3.50 | 4.0 | 1.16 |
| 21 | 3.12 | 3.40 | 4.0 | 1.07 | 3.43 | 3.63 | 4.0 | .79 | 3.86 | 3.92 | 4.0 | .38 | 2.97 | 3.22 | 4.0 | 1.15 | 3.00 | 3.25 | 4.0 | 1.16 | 3.55 | 3.71 | 4.0 | .69 | 3.33 | 3.25 | 3.0 | .58 |
| 22 | 2.61 | 2.90 | 4.0 | 1.32 | 1.29 | 1.00 | 0.0 | 1.38 | 2.57 | 2.75 | 1.0 | 1.27 | 2.66 | 2.97 | 4.0 | 1.35 | 3.14 | 3.13 | 3.0 | .69 | 2.64 | 2.88 | 3.0 | 1.21 | 3.33 | 3.25 | 3.0 | .58 |
| 23 | 3.39 | 3.68 | 4.0 | .96 | 3.50 | 3.75 | 4.0 | .84 | 3.29 | 3.63 | 4.0 | 1.11 | 3.40 | 3.67 | 4.0 | .92 | 3.50 | 3.50 | 3.0 | .55 | 3.11 | 3.75 | 4.0 | 1.54 | 4.00 | 4.00 | 4.0 | 0.00 |

Note. $\bar{X}$ = mean; Me = median; Mo = mode; SD = standard deviation

TABLE 26

ANALYSIS OF RECOMMENDATIONS OF RESPONDENTS BY TOTAL GROUP AND PROGRAM AREAS

| Recommendation | Total | | | | Agriculture | | | | Bus./Office | | | | Distributive | | | | Diversified | | | | Health | | | | Home Economics | | | | OMS | | | | Industrial | | | | Technical | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD | $\bar{X}$ | Me | Mo | SD |
| 1 | 2.13 | 1.92 | 1.0 | 1.13 | 2.75 | 2.50 | 4.0 | 1.50 | 2.10 | 2.00 | 2.0 | 1.00 | 2.00 | 2.00 | 1.0 | 1.00 | 2.50 | 2.5 | 1.0 | 1.73 | 1.0 | 1.0 | 1.0 | 0.0 | 1.20 | 1.13 | 1.0 | .45 | 2.41 | 2.44 | 3.0 | 1.01 | 1.72 | 1.34 | 1.0 | 1.02 | 2.13 | 1.50 | 1.0 | 1.2 |
| 2 | 2.67 | 2.79 | 4.0 | 1.21 | 3.25 | 3.50 | 4.0 | 1.50 | 3.00 | 3.25 | 4.0 | 1.10 | 2.33 | 2.50 | 3.0 | 1.16 | 2.25 | 1.5 | 1.0 | 1.50 | 2.0 | 2.0 | 2.0 | 0.0 | 1.40 | 1.25 | 1.0 | .89 | 2.80 | 2.71 | 2.0 | .91 | 2.26 | 2.00 | 1.0 | 1.25 | 3.50 | 3.83 | 4.0 | 1.0 |
| 3 | 3.61 | 3.80 | 4.0 | .71 | 4.00 | 4.00 | 4.0 | 0.00 | 3.58 | 3.64 | 4.0 | .52 | 3.33 | 3.25 | 3.0 | .58 | 3.50 | 3.67 | 4.0 | 1.00 | 4.0 | 4.0 | 4.0 | 0.0 | 1.80 | 1.75 | 2.0 | .84 | 3.81 | 3.91 | 4.0 | .49 | 3.40 | 3.77 | 4.0 | .65 | 3.88 | 3.93 | 4.0 | .3 |
| 4 | 3.75 | 3.88 | 4.0 | .58 | 3.75 | 3.83 | 4.0 | .50 | 3.67 | 3.83 | 4.0 | .65 | 4.00 | 4.00 | 4.0 | 0.00 | 3.75 | 3.83 | 4.0 | .50 | 3.0 | 3.0 | 3.0 | 0.0 | 4.00 | 4.00 | 4.0 | 0.00 | 3.90 | 3.94 | 4.0 | .31 | 3.66 | 3.77 | 4.0 | .54 | 3.25 | 3.50 | 4.0 | 1.3 |
| 5 | 3.74 | 3.87 | 4.0 | .58 | 3.50 | 3.50 | 3.0 | .58 | 3.75 | 3.90 | 4.0 | .62 | 4.00 | 4.00 | 4.0 | 0.00 | 3.75 | 3.83 | 4.0 | .50 | 4.0 | 4.0 | 4.0 | 0.0 | 4.00 | 4.00 | 4.0 | 0.00 | 3.48 | 3.69 | 4.0 | .83 | 3.88 | 3.93 | 4.0 | .33 | 3.88 | 3.93 | 4.0 | .3 |
| 6 | 3.61 | 3.83 | 4.0 | .75 | 3.75 | 3.83 | 4.0 | .50 | 3.55 | 3.81 | 4.0 | .93 | 3.67 | 3.75 | 4.0 | .58 | 3.00 | 3.00 | 3.0 | .82 | 4.0 | 4.0 | 4.0 | 0.0 | 3.00 | 3.88 | 4.0 | .45 | 3.52 | 3.81 | 4.0 | .91 | 3.57 | 3.83 | 4.0 | .78 | 3.75 | 3.83 | 4.0 | .4 |
| 7 | 3.20 | 3.42 | 4.0 | .96 | 3.00 | 3.00 | 3.0 | .82 | 3.50 | 3.75 | 4.0 | .91 | 4.00 | 4.00 | 4.0 | 0.00 | 3.25 | 3.17 | 3.0 | .50 | 3.0 | 3.0 | 3.0 | 0.0 | 3.40 | 3.33 | 3.0 | .55 | 3.41 | 3.59 | 4.0 | .78 | 2.63 | 2.84 | 3.0 | 1.09 | 3.25 | 3.70 | 4.0 | 1.1 |
| 8 | 3.64 | 3.80 | 4.0 | .69 | 3.50 | 3.50 | 3.0 | .58 | 3.42 | 3.64 | 4.0 | .90 | 4.00 | 4.00 | 4.0 | 0.00 | 3.75 | 3.83 | 4.0 | .58 | 3.0 | 3.0 | 3.0 | 0.0 | 3.60 | 3.67 | 4.0 | .55 | 3.54 | 3.76 | 4.0 | .88 | 3.65 | 3.79 | 4.0 | .65 | 3.88 | 3.93 | 4.0 | .3 |
| 9 | 3.65 | 3.79 | 4.0 | .63 | 3.50 | 3.50 | 3.0 | .58 | 3.58 | 3.58 | 3.0 | .52 | 4.00 | 4.00 | 4.0 | 0.00 | 3.75 | 3.83 | 4.0 | .50 | 4.0 | 4.0 | 4.0 | 0.0 | 3.80 | 3.88 | 4.0 | .45 | 3.38 | 3.59 | 4.0 | .90 | 3.74 | 3.83 | 4.0 | .44 | 3.63 | 3.83 | 4.0 | .7 |
| 10 | 2.48 | 2.29 | 2.0 | 1.09 | 2.25 | 2.00 | 2.0 | 1.26 | 1.82 | 1.63 | 1.0 | .98 | 2.00 | 2.00 | 1.0 | 1.00 | 2.00 | 2.00 | 2.0 | .82 | 4.0 | 4.0 | 4.0 | 0.0 | 3.80 | 3.88 | 4.0 | .45 | 2.21 | 2.03 | 2.0 | 1.0 | 2.80 | 2.99 | 4.0 | 1.08 | 3.00 | 3.50 | 4.0 | 1.2 |
| 11 | 3.47 | 3.69 | 4.0 | .85 | 4.00 | 4.00 | 4.0 | 0.00 | 3.50 | 3.75 | 4.0 | .91 | 3.67 | 3.75 | 4.0 | .58 | 3.75 | 3.83 | 4.0 | .50 | 4.0 | 4.0 | 4.0 | 0.0 | 3.40 | 3.33 | 3.0 | .55 | 3.62 | 3.74 | 4.0 | .56 | 3.37 | 3.76 | 3.0 | .60 | 3.63 | 3.70 | 4.0 | .5 |
| 12 | 3.55 | 3.64 | 4.0 | .57 | 3.50 | 3.50 | 3.0 | 0.58 | 3.50 | 3.64 | 4.0 | .67 | 3.67 | 3.75 | 4.0 | .58 | 3.75 | 3.83 | 4.0 | .50 | 4.0 | 4.0 | 4.0 | 0.0 | 3.40 | 3.33 | 3.0 | .55 | 3.62 | 3.74 | 4.0 | .56 | 3.37 | 3.76 | 3.0 | .60 | 3.63 | 3.70 | 4.0 | .5 |
| 13 | 3.49 | 3.60 | 4.0 | .68 | 3.25 | 3.17 | 3.0 | .50 | 3.58 | 3.64 | 4.0 | .52 | 3.67 | 3.75 | 4.0 | .58 | 3.25 | 3.17 | 3.0 | .50 | 3.0 | 3.0 | 3.0 | 0.0 | 3.40 | 3.33 | 3.0 | .55 | 3.21 | 3.33 | 3.0 | .98 | 3.51 | 3.65 | 4.0 | .61 | 3.75 | 3.83 | 4.0 | .4 |
| 14 | 3.09 | 3.23 | 3.0 | 1.00 | 3.67 | 3.75 | 4.0 | .58 | 2.92 | 3.17 | 3.0 | 1.24 | 2.33 | 2.25 | 2.0 | .58 | 3.25 | 3.17 | 3.0 | .50 | 3.0 | 3.0 | 3.0 | 0.0 | 2.60 | 2.67 | 3.0 | .55 | 3.09 | 3.44 | 4.0 | 1.20 | 3.09 | 3.16 | 3.0 | .85 | 3.25 | 3.67 | 4.0 | 1.4 |
| 15 | 3.64 | 3.78 | 4.0 | .61 | 3.25 | 3.17 | 3.0 | .50 | 3.75 | 3.83 | 4.0 | .45 | 4.00 | 4.00 | 4.0 | 0.00 | 3.25 | 3.17 | 3.0 | .50 | 3.0 | 3.0 | 3.0 | 0.0 | 3.80 | 3.88 | 4.0 | .45 | 3.33 | 3.55 | 4.0 | .97 | 3.71 | 3.80 | 4.0 | .46 | 3.75 | 3.83 | 4.0 | .4 |
| 16 | 3.36 | 3.60 | 4.0 | .86 | 3.25 | 3.17 | 3.0 | .50 | 3.17 | 3.13 | 3.0 | .58 | 4.00 | 4.00 | 4.0 | 0.00 | 3.75 | 3.83 | 4.0 | .50 | 3.0 | 3.0 | 3.0 | 0.0 | 3.40 | 3.63 | 4.0 | 1.34 | 3.42 | 3.63 | 4.0 | .76 | 3.14 | 3.53 | 4.0 | 1.12 | 3.63 | 3.70 | 4.0 | .5 |
| 17 | 3.61 | 3.82 | 4.0 | .80 | 3.25 | 3.17 | 3.0 | .50 | 3.42 | 3.75 | 4.0 | 1.17 | 4.00 | 4.00 | 4.0 | 0.00 | 4.00 | 4.00 | 4.0 | 0.00 | 4.0 | 4.0 | 4.0 | 0.0 | 3.80 | 3.88 | 4.0 | .45 | 3.83 | 3.92 | 4.0 | .47 | 3.46 | 3.80 | 4.0 | 1.04 | 3.63 | 3.83 | 4.0 | .7 |
| 18 | 3.45 | 3.67 | 4.0 | .86 | 2.50 | 2.50 | 1.0 | 1.73 | 3.33 | 3.33 | 3.0 | .65 | 4.00 | 4.00 | 4.0 | 0.00 | 3.75 | 3.83 | 4.0 | .50 | 4.0 | 4.0 | 4.0 | 0.0 | 3.60 | 3.67 | 4.0 | .55 | 3.24 | 3.45 | 4.0 | .91 | 3.60 | 3.74 | 4.0 | .70 | 3.38 | 3.83 | 4.0 | 1.4 |
| 19 | 3.60 | 3.77 | 4.0 | .70 | 2.50 | 2.67 | 3.0 | 1.00 | 3.42 | 3.64 | 4.0 | .79 | 4.00 | 4.00 | 4.0 | 0.00 | 3.75 | 3.83 | 4.0 | .50 | 4.0 | 4.0 | 4.0 | 0.0 | 3.40 | 3.33 | 3.0 | .55 | 3.69 | 3.78 | 4.0 | .47 | 3.53 | 3.74 | 4.0 | .78 | 3.50 | 3.83 | 4.0 | 1.0 |
| 20 | 3.35 | 3.64 | 4.0 | .94 | 3.75 | 3.83 | 4.0 | .50 | 3.50 | 3.64 | 4.0 | .67 | 3.67 | 3.75 | 4.0 | .58 | 2.25 | 2.50 | 0.0 | 1.71 | 4.0 | 4.0 | 4.0 | 0.0 | 3.40 | 3.33 | 3.0 | .55 | 2.97 | 3.18 | 3.0 | 1.12 | 3.43 | 3.74 | 4.0 | .92 | 3.88 | 3.92 | 4.0 | .3 |
| 21 | 3.12 | 3.40 | 4.0 | 1.07 | 3.00 | 3.00 | 3.0 | .82 | 3.00 | 3.25 | 4.0 | 1.21 | 3.33 | 3.25 | 3.0 | .58 | 2.00 | 2.50 | 3.0 | 1.41 | 3.0 | 3.0 | 3.0 | 0.0 | 2.20 | 3.00 | 4.0 | 2.05 | 3.10 | 3.18 | 3.0 | .96 | 3.23 | 3.58 | 4.0 | 1.03 | 3.38 | 3.70 | 4.0 | 1.0 |
| 22 | 2.61 | 2.90 | 4.0 | 1.32 | 2.67 | 3.00 | 1.0 | 1.53 | 2.17 | 2.50 | 1.0 | 1.53 | 2.33 | 2.00 | 0.0 | 2.08 | 3.00 | 3.00 | 3.0 | .82 | 1.0 | 1.0 | 1.0 | 0.0 | 2.60 | 3.00 | 3.0 | 1.52 | 2.48 | 2.78 | 3.0 | 1.33 | 2.82 | 3.13 | 4.0 | 1.27 | 2.88 | 3.50 | 4.0 | 1.4 |
| 23 | 3.39 | 3.68 | 4.0 | .96 | 3.25 | 3.50 | 4.0 | .96 | 3.33 | 3.50 | 4.0 | .89 | 3.33 | 3.25 | 3.0 | .50 | 3.75 | 3.83 | 4.0 | .50 | 4.0 | 4.0 | 4.0 | 0.0 | 3.80 | 3.88 | 4.0 | .45 | 3.04 | 3.50 | 4.0 | 1.35 | 3.51 | 3.77 | 4.0 | .89 | 3.63 | 3.83 | 4.0 | .7 |

Note. $\bar{X}$ = mean Me = median; Mo = mode; SD = standard deviation

# APPENDIX E

## ADDITIONAL RESPONSES AND COMMENTS OFFERED BY RESPONDENTS

ADDED RESPONSES

| Responses | Rating |
|---|---|
| **Characteristics** | |
| High school guidance/career counselors are helpful in recruiting high school students into vocational/technical courses | 1 |
| A professional environment is simulated in the classroom/laboratory | 4 |
| A casual atmosphere with flexibility and freedom of choice exists | 4 |
| The curriculum coordinator works well with the school faculty and staff | 4 |
| **Problems** | |
| Computer assistance is not available for recordkeeping | 4 |
| Student organizations do not have funds for students to participate in conferences | 4 |
| Quality of state-adopted textbooks is inadequate | 4 |
| Quantity of state-adopted textbooks is inadequate | 4 |
| Problem students may evade school because accurate attendance records are not kept | 3 |
| Classes are scheduled for varying periods of time, such as nine weeks and thirteen weeks | 4 |
| Both time and competence are required before a student may graduate | 0 |
| Hot water is not available for cleanup purposes | 4 |
| Student discipline is misdirected | 3 |

| | |
|---|---|
| Pacing students through all the objectives so they can graduate in June is difficult | 4 |
| High schools will not allow an incomplete grade to stand on the records until a student has attained the established competency | 4 |
| Teachers suffer tremendous physical and emotional pressure to handle all the paperwork | 4 |
| Not enough time exists to teach individual students with student-teacher ratio and recordkeeping | 4 |
| Negative evaluations by administrators because too much time is spent at the desk with paperwork | 4 |
| Tests have not been updated to meet the needs | 4 |
| Sufficient testing of high school students is not available | 4 |
| A great lack of communication exists between the technical center and the high school | 4 |
| Access to student records from the library | 4 |
| Constant changing of schedules to adjust to basketball games | 4 |
| Little prior notice of high school activities and events to plan instruction effectively | 4 |
| Major critical problem is the lack of clerical help to free teachers to work with students | 4 |
| The learning habits of students are ignored | 3 |
| There is no school spirit or interest | 3 |
| High school guidance/career counselors are not showing any interest in vocational/technical courses | 3 |
| The TABE Test should cover more areas that relate to the GED Examination | 3 |
| Ample materials is not provided in the mathematics and language prescription catalog for IMTS | 4 |

ADDED COMMENTS

IMTS instruction is not available to high school students unless they withdraw from the high school

New facilities just occupied should help to improve the instruction

Student organizations, such as FFA and VICA, are not always appropriate for adults and mixed classes

Sometimes a flexible open system can turn around students with previous attendance or discipline problems

Students do not feel the competitive nature of the real world in an open-entry/open-exit system

Additional administrative/supervisory personnel are definitely not needed

Many recommendations are already in use here, so I naturally agreed with them

Space and facilities will improve when the next phase of construction is completed

Materials and facilities are probably the most important items in the open-entry/open-exit system

IMTS has the curriculum and expertise to provide meaningful remediation for high school students

The system will fail if paperwork is not kept up-to-date

Teacher aides are mandatory for the system to survive

Basic system is sound, but teachers are extremely overworked

Teachers' expertise in teaching is not getting used effectively because of paperwork

Some programs possess the characteristics of the system extensively; others do not possess them at all

| | |
|---|---|
| Use of students beyond a reasonable training time is required for interoffice positions | 4 |

Recommendations

| | |
|---|---|
| A complete orientation to the open entry-exit system should be provided to all students when they begin a program | 4 |
| Students with attendance or discipline problems should only be allowed in the open-entry/open-exit system if space is available | 4 |
| Students should be given more complementary skills | 3 |
| Students should not have to be forced to stay in the classroom | 4 |
| Commercial instructional materials which are appropriate to student needs should be identified | 4 |
| Every teacher should have morning and afternoon breaks similar to business and industry | 4 |
| A planning period is needed for all teachers | 4 |
| Time and competence should be considered by the licensing agencies in providing certification | 4 |
| Part-time teachers should be allowed to work more than twenty hours per week | 4 |
| High school students should visit the center and programs in action before entering the programs | 4 |
| More time is needed for writing modules during the staff development programs | 4 |

# APPENDIX F

## ANALYSIS OF DEMOGRAPHIC DATA

TABLE 27

NUMBER OF RESPONSES ON DEMOGRAPHUC DATA BY TOTAL RESPONDENTS

1. School district in which you are employed:

20 1. Marion  38 2. Pinellas  68 3. St. Johns

2. Position in which you are employed:

83 1. Instructor  11 2. Teacher's Aide  7 3. Counselor
7 4. Administrator  3 5. Clerical Aide  7 6. Supervisor

3. Status of your position:

90 1. Full-time  28 2. Part-time

4. Number of years in your current position:

33 1. 0-1 year  53 2. 2-5 years  26 3. 6-10 years
5 4. 11-20 years  1 5. 20 or more years

5. Program service area(s) in which you work (if applicable):

4 1. Agriculture  4 2. Diversified  32 3. IMTS
12 4. Business/Office  1 5. Health  36 6. Industrial
3 7. Distributive  5 8. Home Economics  9 9. Technical

6. Position(s) and subject matter in which you are certified:

92 1. Teacher - _____ (specify)  3 2. Coordinator
1 3. Supervisor - _____ (specify)  4 4. Director
6 5. Other - _____ (specify)  3 6. Counselor

7. Path through which you entered vocational education:

17 1. Bachelor's in vocational area  46 2. Temporary Certification
34 3. Bachelor's in another field  21 4. Other Master - Industry

8. Level of your professional preparation:

41 1. Coursework  30 2. Bachelor's  32 3. Master's
7 4. Specialist  0 5. Doctorate

9. Number of years of vocational education teaching experience:

28 1. 0-1 year  43 2. 2-5 years  26 3. 6-10 years
14 4. 11-20 years  4 5. 20 or more years

10. Your sex is:

64 1. Male  54 2. Female

11. Your majority race is:

106 1. Caucasian  10 2. Black  1 3. Hispanic
1 4. Indian  0 5. Asian

12. Number of years your program has been open-entry/open-exit:

2 1. Under 1 year  18 2. 1-2 years  98 3. 3-5 years

13. Number of years high school students have been in the open system:

6 1. Under 1 year  22 2. 1-2 years  90 3. 3-5 years

14. Number of feeder high schools into your program:

53 1. 1-2 schools  10 2. 3-4 schools  55 3. 5-6 schools

TABLE 28

NUMBER OF RESPONSES ON DEMOGRAPHIC DATA BY MARION COUNTY RESPONDENTS

1. School district in which you are employed:

20 1. Marion  0 2. Pinellas  0 3. St. Johns

2. Position in which you are employed:

14 1. Instructor  1 2. Teacher's Aide  3 3. Counselor
2 4. Administrator  0 5. Clerical Aide  0 6. Supervisor

3. Status of your position:

5 1. Full-time  15 2. Part-time

4. Number of years in your current position:

5 1. 0-1 year  15 2. 2-5 years  0 3. 6-10 years
0 4. 11-20 years  0 5. 20 or more years

5. Program service area(s) in which you work (if applicable):

1 1. Agriculture  3 2. Diversified  7 3. IMTS
2 4. Business/Office  2 5. Health  1 6. Industrial
1 7. Distributive  1 8. Home Economics  1 9. Technical

6. Position(s) and subject matter in which you are certified:

15 1. Teacher - _____ (specify)  0 2. Coordinator
0 3. Supervisor - _____ (specify)  0 4. Director
3 5. Other - _____ (specify)  1 6. Counselor

7. Path through which you entered vocational education:

4 1. Bachelor's in vocational area  6 2. Temporary Certification
8 3. Bachelor's in another field  0 4. Other _____

8. Level of your professional preparation:

9 1. Coursework  4 2. Bachelor's  4 3. Master's
1 4. Specialist  1 5. Doctorate

9. Number of years of vocational education teaching experience:

6 1. 0-1 year  9 2. 2-5 years  3 3. 6-10 years
1 4. 11-20 years  1 5. 20 or more years

10. Your sex is:

12 1. Male  8 2. Female

11. Your majority race is:

17 1. Caucasian  3 2. Black  0 3. Hispanic
0 4. Indian  0 5. Asian

12. Number of years your program has been open-entry/open-exit:

0 1. Under 1 year  3 2. 1-2 years  17 3. 3-5 years

13. Number of years high school students have been in the open system:

3 1. Under 1 year  7 2. 1-2 years  10 3. 3-5 years

14. Number of feeder high schools into your program:

0 1. 1-2 schools  2 2. 3-4 schools  18 3. 5-6 schools

TABLE 29

NUMBER OF RESPONSES OF DEMOGRAPHIC DATA BY PINELLAS COUNTY RESPONDENTS

1. School district in which you are employed:

| | | |
|---|---|---|
| 0 1. Marion | 38 2. Pinellas | 0 3. St. Johns |

2. Position in which you are employed:

| | | |
|---|---|---|
| 32 1. Instructor | 0 2. Teacher's Aide | 2 3. Counselor |
| 3 4. Administrator | 0 5. Clerical Aide | 1 6. Supervisor |

3. Status of your position:

| | |
|---|---|
| 34 1. Full-time | 4 2. Part-time |

4. Number of years in your current position:

| | | |
|---|---|---|
| 5 1. 0-1 year | 10 2. 2-5 years | 18 3. 6-10 years |
| 4 4. 11-20 years | 1 5. 20 or more years | |

5. Program service area(s) in which you work (if applicable):

| | | |
|---|---|---|
| 0 1. Agriculture | 0 2. Diversified | 10 3. IMTS |
| 5 4. Business/Office | 0 5. Health | 8 6. Industrial |
| 2 7. Distributive | 4 8. Home Economics | 4 9. Technical |

6. Position(s) and subject matter in which you are certified:

| | |
|---|---|
| 36 1. Teacher - _____ (specify) | 1 2. Coordinator |
| 0 3. Supervisor - _____ (specify) | 2 4. Director |
| 0 5. Other - _____ (specify) | 2 6. Counselor |

7. Path through which you entered vocational education:

| | |
|---|---|
| 10 1. Bachelor's in vocational area | 12 2. Temporary Certification |
| 16 3. Bachelor's in another field | 0 4. Other _____ |

8. Level of your professional preparation:

| | | |
|---|---|---|
| 7 1. Coursework | 10 2. Bachelor's | 19 3. Master's |
| 2 4. Specialist | 0 5. Doctorate | |

9. Number of years of vocational education teaching experience:

| | | |
|---|---|---|
| 3 1. 0-1 year | 6 2. 2-5 years | 15 3. 6-10 years |
| 12 4. 11-20 years | 2 5. 20 or more years | |

10. Your sex is:

| | |
|---|---|
| 18 1. Male | 20 2. Female |

11. Your majority race is:

| | | |
|---|---|---|
| 34 1. Caucasian | 3 2. Black | 1 3. Hispanic |
| 0 4. Indian | 0 5. Asian | |

12. Number of years your program has been open-entry/open-exit:

| | | |
|---|---|---|
| 4 1. Under 1 year | 5 2. 1-2 years | 29 3. 3-5 years |

13. Number of years high school students have been in the open system:

| | | |
|---|---|---|
| 5 1. Under 1 year | 6 2. 1-2 years | 27 3. 3-5 years |

14. Number of feeder high schools into your program:

| | | |
|---|---|---|
| 0 1. 1-2 schools | 5 2. 3-4 schools | 33 3. 5-6 schools |

TABLE 30

NUMBER OF RESPONSES ON DEMOGRAPHIC DATA
BY ST. JOHNS COUNTY RESPONDENTS

1. School district in which you are employed:

0 1. Marion 0 2. Pinellas 60 3. St. Johns

2. Position in which you are employed:

37 1. Instructor 10 2. Teacher's Aide 2 3. Counselor
2 4. Administrator 3 5. Clerical Aide 6 6. Supervisor

3. Status of your position:

51 1. Full-time 9 2. Part-time

4. Number of years in your current position:

23 1. 0-1 year 28 2. 2-5 years 8 3. 6-10 years
1 4. 11-20 years 0 5. 20 or more years

5. Program service area(s) in which you work (if applicable):

3 1. Agriculture 1 2. Diversified 15 3. IMTS
5 4. Business/Office 1 5. Health 26 6. Industrial
0 7. Distributive 0 8. Home Economics 4 9. Technical

6. Position(s) and subject matter in which you are certified:

41 1. Teacher - _____ (specify) 2 2. Coordinator
1 3. Supervisor - _____ (specify) 2 4. Director
3 5. Other - _____ (specify) 1 6. Counselor

7. Path through which you entered vocational education:

7 1. Bachelor's in vocational area 28 2. Temporary Certification
12 3. Bachelor's in another field 10 4. Other _____

8. Level of your professional preparation:

25 1. Coursework 16 2. Bachelor's 9 3. Master's
4 4. Specialist 0 5. Doctorate

9. Number of years of vocational education teaching experience:

19 1. 0-1 year 28 2. 2-5 years 8 3. 6-10 years
1 4. 11-20 years 1 5. 20 or more years

10. Your sex is:

34 1. Male 26 2. Female

11. Your majority race is:

55 1. Caucasian 4 2. Black 0 3. Hispanic
1 4. Indian 0 5. Asian

12. Number of years your program has been open-entry/open-exit:

2 1. Under 1 year 10 2. 1-2 years 48 3. 3-5 years

13. Number of years high school students have been in the open system:

2 1. Under 1 year 10 2. 1-2 years 48 3. 3-5 years

14. Number of feeder high schools into your program:

53 1. 1-2 schools 3 2. 3-4 schools 4 3. 5-6 schools

# APPENDIX G

## COMPARISON OF RESPONSES BY PARTICIPANTS BETWEEN THE FIELD TEST AND THE FINAL SURVEY

TABLE 31

PEARSON PRODUCT-MOMENT CORRELATION COEFFICIENTS FOR SURVEY ITEMS OF THE FIELD TEST AND FINAL SURVEY INSTRUMENTS

| Characteristics Item # | r Value | Problems Item # | r Value | Recommendations Item # | r Value |
|---|---|---|---|---|---|
| 1 | .9846 | 1 | .9764 | 1 | .9733 |
| 2 | 1.0000 | 2 | .9717 | 2 | .9469 |
| 3 | .9433 | 3 | .9544 | 3 | .9743 |
| 4 | 1.0000 | 4 | .8057 | 4 | 1.0000 |
| 5 | 1.0000 | 5 | .8806 | 5 | .9794 |
| 6 | .9926 | 6 | .9472 | 6 | 1.0000 |
| 7 | .9897 | 7 | .9950 | 7 | .9078 |
| 8 | .9789 | 8 | .9898 | 8 | .9063 |
| 9 | .9819 | 9 | .9801 | 9 | .9432 |
| 10 | .9560 | 10 | .9860 | 10 | .9837 |
| 11 | 1.0000 | 11 | 1.0000 | 11 | .9369 |
| 12 | .9762 | 12 | .9747 | 12 | .9469 |
| 13 | 1.0000 | 13 | .9935 | 13 | 1.0000 |
| 14 | .9458 | 14 | .9796 | 14 | .9820 |
| 15 | .9560 | 15 | .9893 | 15 | .9234 |
| 16 | .9627 | 16 | .8812 | 16 | .9247 |
| 17 | .9458 | 17 | .9778 | 17 | .9370 |
| 18 | .9736 | 18 | .9827 | 18 | .9752 |
| 19 | .9036 | 19 | .9940 | 19 | 1.0000 |
| 20 | .9723 | 20 | .9821 | 20 | .9432 |
| 21 | .9614 | 21 | .9935 | 21 | .9848 |
| 22 | .9718 | 22 | .9831 | 22 | .9794 |
| 23 | .9877 | 23 | .9898 | 23 | .9449 |
| 24 | .9721 | 24 | .9857 | | |
| 25 | .9705 | 25 | .9835 | | |
| 26 | .9223 | 26 | .9921 | | |
| 27 | .9627 | 27 | .9723 | | |
| 28 | .9918 | 28 | 1.0000 | | |
| 29 | .9674 | 29 | .9837 | | |
| 30 | .9825 | 30 | .9801 | | |
| 31 | 1.0000 | 31 | .9921 | | |
| 32 | .9357 | 32 | 1.0000 | | |
| 33 | .9914 | 33 | .9778 | | |
| 34 | .9754 | 34 | .9818 | | |
| 35 | .9918 | 35 | .9935 | | |
| 36 | .8057 | 36 | .9851 | | |
| 37 | 1.0000 | 37 | .9581 | | |
| 38 | .8715 | 38 | 1.0000 | | |
| 39 | .9868 | 39 | .9857 | | |
| 40 | .9295 | 40 | .9921 | | |
| 41 | .9793 | 41 | .9827 | | |
| 42 | .9926 | 42 | 1.0000 | | |
| 43 | .9627 | 43 | .9919 | | |
| 44 | .9799 | 44 | .9800 | | |
| 45 | 1.0000 | 45 | .9894 | | |
| 46 | .9236 | 46 | .9818 | | |
| 47 | 1.0000 | 47 | .9837 | | |
| 48 | .9569 | 48 | .9801 | | |
| 49 | .9825 | 49 | .9778 | | |
| 50 | .9894 | 50 | .9581 | | |
| 51 | .9846 | | | | |
| 52 | .9868 | | | | |
| 53 | .9914 | | | | |

r = Pearson Product-Moment Correlation Coefficient.

TABLE 32

NUMBER OF VARIATIONS PER ITEM FOR RESPONSES BETWEEN THE FIELD TEST AND FINAL SURVEY

| Characteristics Item # | Number of Variations | Problems Item # | Number of Variations | Recommendations Item # | Number of Variations | Demographic Data | Number of Variations |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 3 | 1 | 1 | 1 | 0 |
| 2 | 0 | 2 | 1 | 2 | 1 | 2 | 0 |
| 3 | 1 | 3 | 2 | 3 | 1 | 3 | 0 |
| 4 | 0 | 4 | 3 | 4 | 0 | 4 | 0 |
| 5 | 0 | 5 | 2 | 5 | 0 | 5 | 0 |
| 6 | 0 | 6 | 4 | 6 | 0 | 6 | 0 |
| 7 | 1 | 7 | 1 | 7 | 2 | 7 | 0 |
| 8 | 3 | 8 | 2 | 8 | 1 | 8 | 0 |
| 9 | 1 | 9 | 1 | 9 | 1 | 9 | 0 |
| 10 | 2 | 10 | 1 | 10 | 1 | 10 | 0 |
| 11 | 0 | 11 | 0 | 11 | 2 | 11 | 0 |
| 12 | 1 | 12 | 1 | 12 | 1 | 12 | 0 |
| 13 | 0 | 13 | 2 | 13 | 0 | 13 | 0 |
| 14 | 0 | 14 | 2 | 14 | 1 | 14 | 0 |
| 15 | 3 | 15 | 2 | 15 | 1 | | |
| 16 | 2 | 16 | 3 | 16 | 1 | | |
| 17 | 2 | 17 | 1 | 17 | 1 | | |
| 18 | 2 | 18 | 2 | 18 | 1 | | |
| 19 | 4 | 19 | 1 | 19 | 0 | | |
| 20 | 2 | 20 | 1 | 20 | 0 | | |
| 21 | 3 | 21 | 1 | 21 | 0 | | |
| 22 | 2 | 22 | 1 | 22 | 0 | | |
| 23 | 1 | 23 | 2 | 23 | 1 | | |
| 24 | 3 | 24 | 1 | | | | |
| 25 | 2 | 25 | 2 | | | | |
| 26 | 3 | 26 | 1 | | | | |
| 27 | 2 | 27 | 2 | | | | |
| 28 | 1 | 28 | 0 | | | | |
| 29 | 1 | 29 | 2 | | | | |
| 30 | 1 | 30 | 1 | | | | |
| 31 | 0 | 31 | 1 | | | | |
| 32 | 3 | 32 | 0 | | | | |
| 33 | 1 | 33 | 1 | | | | |
| 34 | 1 | 34 | 1 | | | | |
| 35 | 1 | 35 | 1 | | | | |
| 36 | 4 | 36 | 2 | | | | |
| 37 | 0 | 37 | 1 | | | | |
| 38 | 2 | 38 | 0 | | | | |
| 39 | 1 | 39 | 1 | | | | |
| 40 | 1 | 40 | 1 | | | | |
| 41 | 2 | 41 | 2 | | | | |
| 42 | 1 | 42 | 0 | | | | |
| 43 | 2 | 43 | 1 | | | | |
| 44 | 2 | 44 | 2 | | | | |
| 45 | 0 | 45 | 1 | | | | |
| 46 | 3 | 46 | 1 | | | | |
| 47 | 0 | 47 | 2 | | | | |
| 48 | 1 | 48 | 1 | | | | |
| 49 | 1 | 49 | 1 | | | | |
| 50 | 1 | 50 | 1 | | | | |
| 51 | 1 | | | | | | |
| 52 | 1 | | | | | | |
| 53 | 1 | | | | | | |

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VITA

Barbara Wilkie received her Bachelor of Science degree in Business Education and Business Administration at the University of Florida in 1968. She earned a Master of Arts degree in Distributive Education in 1971 at the University of South Florida. Dr. Wilkie received her Doctor of Philosophy degree in Educational Administration and Supervision with an emphasis in Vocational Education at Florida State University in 1978.

Dr. Wilkie has held a variety of positions in education including: Assistant Principal at Godby High School in Tallahassee, Florida, 1976-1978; Independent Consultant and Visiting Professor in Florida and five other states, 1974-1976; Area State Supervisor, Curriculum Specialist and Collegiate DECA State Advisor in Distributive Education with the Florida Department of Education in Tallahassee, Florida, 1972-1974; Distributive Education coordinator and Business Education instructor at Dixie Hollins High School in St. Petersburg, Florida, 1968-1972; and Resident Assistant Counselor at the University of Florida in Gainesville, Florida, 1966-1968. In September of 1978, Dr. Wilkie assumed a position at Georgia State University in Atlanta, Georgia, as an Assistant Professor for Distributive and Vocational Education.

Dr. Wilkie has been very active in professional organizations. She is a life member of the American and Florida Vocational Associations. She founded and served as managing editor of the Distributive Educators' Digest, the official journal for the Distributive Education Division of the American Vocational Association. Dr. Wilkie was elected President of the Pinellas and Florida Associations of Distributive Education Teachers. She has conducted numerous workshops at national, state, and district conferences.

Dr. Wilkie has written and/or edited: nineteen books and curriculum guides; articles for seven different journals, yearbooks, or newsletters; and 1800 pages of competency-based instructional materials for the Interstate Distributive Education Curriculum Consortium.